



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

7/12/93

MEMORANDUM

SUBJECT: Response to Questions on the Tentative Decision to Issue Ocean Dumping Permits to the Canneries in American Samoa

FROM: Amy K. Zimpfer, Chief
Wetlands, Oceans and Estuaries Branch (W-7) *Amy Zimpfer*

TO: Harry Seraydarian, Director
Water Management Division (W-1)

On May 28, 1993, I alerted you about our tentative decision to issue ocean dumping permits to the canneries in American Samoa under MPRSA §102. This action is a continuation of ocean dumping of fish processing wastes at a site more than 5 nautical miles southeast of American Samoa which began in July 1990. The canneries also had ocean dumping permits to dispose of fish processing wastes off American Samoa beginning in 1979. You had two questions about information in the Fact Sheet for the new MPRSA §102 permits regarding: 1) the basis for dropping metals and petroleum hydrocarbons from waste stream analyses, and 2) opportunities for pollution prevention.

HEAVY METALS

The 1990 ocean dumping permits required the canneries to evaluate levels of heavy metals and petroleum hydrocarbons in their waste streams and make recommendations on ways to reduce the concentrations (Special Conditions 3.3.5 and 3.3.6). StarKist Samoa had their analytical laboratory (AECOS) evaluate the sources and concentrations of these two chemical groups. StarKist concluded that heavy metal concentrations were only slightly elevated (about 1 order of magnitude) compared to Pago Pago Harbor water which is used to thaw the fish before processing. The mean concentrations for heavy metals were higher than the mean concentrations of heavy metals measured in Pago Pago Harbor as reported by StarKist Samoa. StarKist made this comparison under their NPDES permit, not as a requirement under their ocean dumping permit.

VCS Samoa Packing evaluated their waste streams too. They concluded that they did not add chemicals to their waste streams that would increase heavy metal concentrations. Therefore, they were unable to determine the source of heavy metals in the waste streams. One exception is alum (aluminum sulfate) which is added to the waste streams at both plants as a coagulant. Aluminum is found in higher concentrations in the DAF sludge waste streams of both plants in concentrations that are higher than other heavy metals.

We reviewed 30 months of data on heavy metal concentrations in the waste material submitted under the 1990 ocean dumping permits. The fish processing wastes are being dumped in the ocean and no data is available on ambient ocean concentrations of heavy metals off American Samoa. We assumed that the ambient concentrations of heavy metals in the ocean off American Samoa are extremely low, probably less than 0.01 mg/L that is used to characterize ambient ocean heavy metal concentrations (Williams, 1962; Sverdrup *et al.*, 1942). These concentrations are even lower than the mean heavy metal concentrations measured by StarKist Samoa in Pago Pago Harbor.

Concentrations of material disposed at the ocean dumping site were discussed in a report titled: *Mathematical/Computer Modeling of Fish Waste Disposal at an Ocean Disposal Site off Tutuila Island, American Samoa by SOS Environmental, Inc., March 1990*. The mathematical computer model used to determine the size of the ocean disposal site employed plume density, particle settling velocity and currents as the determining factors for dilution. This model showed that dilution of as much as 250,000 times could occur inside the boundary of the disposal site within the 4 hour mixing time as defined for the "limiting permissible concentration" of a waste (40 C.F.R. §227.27) (see attached excerpts from the March 1990 modeling report).

The heavy metal with the highest mean value, excluding aluminum, is copper in VCS Samoa Packing's DAF sludge at 6.08 mg/L. The concentration of this compound after dilution would be 0.00002432 mg/L. EPA's acute and chronic water quality criteria for copper are 0.0029 mg/L which are 100 times higher than the highest mean value for a copper after dilution. There are no marine water quality criteria for aluminum and this metal is not listed as an EPA Priority Pollutant. Even under the worst case when currents are moving toward shore, concentrations of heavy metals in the plume would be well within the Federal water quality criteria.

The canneries' waste streams are somewhat acidic, with a pH range from 5 to 7 pH units. We discussed adding a base, such as caustic soda, to the waste streams to reduce the pH and potential leaching of metals from cannery pipes into the waste streams. It is not known whether adding caustic soda would actually reduce the concentration of heavy metals entering the waste streams. In addition, the canneries objected to our proposal because they felt that there was no leaching of heavy metals from the waste stream pipes. VCS Samoa Packing indicated that waste material builds up on the inside of the pipes which prevents leaching of heavy metals into the waste streams. StarKist Samoa said they did not wish to manage waste streams using more chemicals. Both canneries objected to the expense of adding caustic soda to bring down the pH.

After careful evaluation of these points, we decided not to require the canneries to add caustic soda to the waste streams, based on the uncertainty of the process, and to delete analysis of heavy metals because the concentrations complied with the LPC of the wastes as required in the Ocean Dumping Regulations.

PETROLEUM HYDROCARBONS

Petroleum hydrocarbon analyses were deleted from the new ocean dumping permits because both canneries had analytical interference problems. High concentrations of oil and grease (composed of fish oils, vegetable oils, soaps and petroleum hydrocarbons) were detected in all waste streams. This is particularly true of VCS Samoa Packing's DAF sludge (150,122 mg/L mean) and StarKist Samoa's press liquor (56,113 mg/L mean). The 1990 ocean dumping permits for the canneries had a requirement for the permittees to evaluate the source of petroleum hydrocarbons from their plants. AECOS, the chemical analysis contractor for both canneries, said it is difficult to separate petroleum hydrocarbons from other oil and grease constituents using EPA Method 418.1 as required in the 1990 ocean dumping permits. The infrared spectrophotometric method defined in EPA Method 418.1 is not as chemical-specific as necessary to separate petroleum hydrocarbons from other oils and greases. We could require them to use EPA Method 8270 to analyze for polynuclear aromatic hydrocarbons, but AECOS said the cost of analysis would go up \$1,000 per sample. This additional level of analysis may not be appropriate now.

The canneries identified several petroleum hydrocarbon sources in their reports, including: plant washdown water, storm water that drains from the street into the wastewater treatment plants, and leaks from motorized equipment or boilers at the plants. StarKist Samoa has proposed 3 means of reducing petroleum hydrocarbon contamination of the waste streams, including: a vacuum system to reduce washdown water (which they have implemented), waste oil tracking, and replacement of old machinery. VCS Samoa Packing has proposed tighter controls on areas of suspected oil leaks.

Based on the problems with chemical analysis and the canneries' proposals to reduce petroleum hydrocarbon contamination, I recommend that we delete the requirement for analysis of petroleum hydrocarbons. Staff in the Marine Protection Section (W-7-1) and the Office of Pacific Islands and Native American Programs (E-4) will coordinate with the canneries' on their proposals to reduce contamination of the waste streams from petroleum hydrocarbons.

POLLUTION PREVENTION

The recently issued NPDES permits, #AS0000019 for VCS Samoa Packing and #AS0000027 for StarKist Samoa, contain effluent limits, monitoring requirements and requirements for implementation of a pollution prevention program. The pollution prevention program must include methods to reduce, eliminate or control sources of pollutants listed in the NPDES permits (similar to the MPRSA permit pollutants), water conservation, and plant

improvements. One of StarKist Samoa's proposals to reduce the volume of wastes dumped in the ocean is to replace the entire fish meal plant at a cost of \$4 million.

The canneries previously discharged their "high strength waste" into Pago Pago Harbor under their old NPDES permits. Pago Pago Harbor is a deep, restricted, tropical bay with little tidal flushing in the inner harbor. The goal of the NPDES program in American Samoa has been to improve the water quality of Pago Pago Harbor by: 1) reducing the amount and concentrations of cannery wastes, and 2) moving the point of discharge to the open end of Pago Pago Harbor. In order to alleviate the water quality stress in Pago Pago Harbor, an ocean disposal permit was issued for disposal of high strength waste. Now the fish processing wastes are disposed more than 5 nautical miles offshore instead of directly into Pago Pago Harbor. According to the ASEPA, recent ambient water quality monitoring reports for Pago Pago Harbor show improvements in water quality. The improved water quality can be attributed to the canneries' compliance with their NPDES and MPRSA permits.

I recommend that the volumes authorized for ocean disposal remain the same to continue the recovery of Pago Pago Harbor. As with the proposed reductions in petroleum hydrocarbons, staff in the Permits Issuance Section (W-5-1), E-4 and W-7-1 will coordinate with the canneries' on their pollution prevention program under the NPDES permits.

If you have any additional concerns on the MPRSA §102 permits, I will arrange a briefing for you at your convenience. Please call me at 4-1953 if you have any questions.

Attachment (1)

cc: Norm Lovelace, E-4
Patricia Young, E-4
Janet Hashimoto, W-7-1
Terry Oda, W-5-1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

MAY 28 1993

MEMORANDUM

SUBJECT: Public Notice of a Tentative Decision to Issue Ocean Dumping Permits to the Canneries in American Samoa

FROM: *M. K. Zimpfer*
for Amy K. Zimpfer, Chief
Wetlands, Oceans and Estuaries Branch (W-7)

TO: Harry Seraydarian, Director
Water Management Division (W-1)

I am alerting you about an Ocean Dumping permitting action that is proposed for two tuna canneries in American Samoa. I have attached copies of the Fact Sheet, the Notice of Application and the Communication Strategy to show you what we propose to do for these permits. The canneries, StarKist Samoa and VCS Samoa Packing, have been dumping fish processing wastes at a site 5.45 nautical miles southeast of American Samoa for the past three years under MPRSA § 102 special permits. These new permits will be effective from July 31, 1993 through July 31, 1996. Now, we must issue another three-year permit to each cannery for them to continue to dump at the site. Under MPRSA, we can only issue special permits for three years at a time.

The Marine Protection Section has reviewed the canneries' waste stream data and prepared two new permits based on the last three years of disposal activities. The new permits are similar to the last ones, except for the following conditions:

1. Waste stream limits were changed for both canneries based on their waste stream analytical reports. In most cases, the limits were lowered. Only a few limits were raised to reflect the new characteristics of the waste streams (see page 6 of the Fact Sheet).
2. Since the waste streams are quite different compared to the past and a new disposal vessel (the FV TASMAN SEA) is being proposed, Region IX will require that the canneries conduct new suspended phase bioassays and rerun the disposal plume model.
3. Analyses for heavy metals and petroleum hydrocarbons in the waste streams were deleted because the concentrations were low and fish oils interfere significantly with the analyses for petroleum hydrocarbons.

4. A computerized navigation system is required now. This will provide Region IX, ASEPA and the Coast Guard with an accurate record of the disposal vessel's tracks during dumping operations.
5. Two new data reporting forms have been prepared to ensure that the canneries present their waste stream and dumping volume information in a format that is useful to Region IX.

I have approved these two draft permits for publication in the *San Francisco Chronicle* and the *American Samoa News*. The draft permits will be out for review for 30 days. After the Marine Protection Section and the Office of Pacific Island and Native American Programs respond to comments and prepare final permits, you will be asked to sign the final permits before July 31, 1993. We do not anticipate any significant comments which would delay permit issuance. However, should there be a delay, the existing permits can be administratively extended until the new permits are issued. If you have any questions on this proposed action, please call me at 4-1953.

Attachments (3)

cc with attachments: Deanna Weiman (E-1)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

**75 Hawthorne Street
San Francisco, CA 94105-3901**

MAY 27 1993

SUBJECT: Notice of Complete Applications and Tentative Decision to Issue Special Ocean Dumping Permits (OD 93-01 and OD 93-02) to StarKist Samoa and VCS Samoa Packing Company

Dear Interested Party:

The U.S. Environmental Protection Agency (EPA), Region IX has determined that StarKist Samoa and VCS Samoa Packing have submitted complete applications for ocean dumping permits to dispose of fish processing wastes off American Samoa. We have prepared two draft special permits (OD 93-01 and OD 93-02) under section 102 of the Marine Protection, Research and Sanctuaries Act (MPRSA). These permits authorize both companies to dispose of fish processing wastes from their canneries into the Pacific Ocean off American Samoa.

On February 6, 1990, Region IX designated an ocean disposal site 5.45 nautical miles southeast of American Samoa for disposal of fish processing wastes. This site was used for three years, from July 1990 to the present, under MPRSA § 102 special permits issued to the StarKist Samoa and VCS Samoa Packing.

EPA Region IX has developed the following documents to support the tentative determination for this special permit:

1. The public notice for EPA Region IX's action.
2. A fact sheet that describes the rationale behind EPA Region IX's decision.
3. The draft special permits which include general and special conditions.

If you have comments on the proposed special permits, please submit your concerns in writing within 30 days of the publication date to me at the EPA address above. If you have any questions regarding the permits, you may call Patricia Young at (415) 744-1594, or me at (415) 744-1156.

Sincerely,

David Stuart

J. Y.

Janet Y. Hashimoto, Chief
Marine Protection Section (W-7-1)

Enclosures (3)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

MAY 27 1993

COMMUNICATION STRATEGY

Action: Public Notice of draft Marine Protection, Research and Sanctuaries Act Section 102 permits for StarKist Samoa and VCS Samoa Packing in American Samoa.

Projected

Announcement: Monday June 7, 1993

Location: American Samoa

Background: EPA Region IX has made a tentative decision to issue Marine Protection, Research and Sanctuaries Act (MPRSA) Section 102 permits to StarKist Samoa and VCS Samoa Packing. These special permits will allow the canneries to continue disposing of fish processing wastes off American Samoa at an ocean disposal site designated by EPA Region IX in February 1990. The special permits will cover a three-year period, from July 31, 1993 through July 31, 1996. Special conditions in the permits include: 1) waste stream limits, 2) monthly waste stream analyses and reports, 3) confirmatory bioassays and plume model analyses, 4) use of a computerized navigation system aboard a new disposal vessel, and 5) disposal site monitoring. The canneries have been disposing of fish processing wastes off American Samoa since 1979 without any significant adverse environmental effects.

Press Release Information

1. Permit applications by StarKist Samoa and VCS Samoa Packing found to be complete.
2. EPA Region IX's tentative decision is to issue three-year special MPRSA Section 102 permits to both canneries for the period July 31, 1993 through July 31, 1996.
3. Waste stream limits reduced for most parameters because the wastes have been characterized better by the canneries.
4. Confirmatory bioassays and new plume modeling work required because the waste streams are different than previous reports and a new disposal vessel, the FV TASMAN SEA, will be used to dispose of the wastes at the designated ocean disposal site.
5. A computerized navigation system is required to provide more accurate plots of the disposal vessel tracks.

Public Interest: Low

Staff Contact: Patrick Cotter (W-7-1), 4-1163

Division Dir.: Harry Seraydarian (W-1)

Attorney: None

Press Officer: Lois Grunwald (E-2), 4-1588

EPA REGION IX COMMUNICATION STRATEGY

Action: Public Notice of draft Marine Protection, Research and Sanctuaries Act Section 102 permits for StarKist Samoa and VCS Samoa Packing in American Samoa.

Projected

Announcement: Monday, June 7, 1993

Materials to be Prepared

A: Press Release

B: Draft MPRSA Section 102 Permits

C: Fact Sheet

D: Public Notice for Newspapers

By Whom:

Lois Grunwald

Patrick Cotter

Patrick Cotter

Patrick Cotter

Note: Press Release at day 0 (June 7) after confirmation from newspapers that the Public Notice will be printed as requested.

AUDIENCE	DAY	EPA STAFF	METHOD	MATERIALS
Responsible Parties				
StarKist Foods	-9	Cotter	Phone/Mail	B,C,D
Van Camp Seafood	"	"	"	"
StarKist Samoa	-9	P. Young (E-4)	Ph./Ex.Mail	"
VCS Samoa Packing	"	"	"	"
Media				
American Samoa	0	Grunwald	PR News	A
Hawaii	"	"	"	"
Federal Elected Officials				
NA				
American Samoa Elected Officials				
NA				
Federal Agencies				
USCG Liaison Office, AS	-9	Young	Express Mail	B,C,D
USCG District, HI	-3	Cotter	Mail	"
DOI Territorial & Int. Affairs	"	"	"	"
NOAA Sanctuaries & Reserves	"	"	"	"
COE Honolulu District	"	"	"	"
USFWS HI	"	"	"	"
NOAA NMFS HI	"	"	"	"
FDA SSB	"	"	"	"
American Samoa Agencies				
Togipa Tasuga ASEPA	-9	Young	Express Mail	B,C,D
Lelei Peau, ASCMP	"	"	"	"
Ray Tulafona, ASMWR	"	"	"	"
Alfonso Galea'i, ASEDP	"	"	"	"
Malaestasi Togufau, ASAG	"	"	"	"
Local Elected Officials				
None				

AUDIENCE	DAY	EPA STAFF	METHOD	MATERIALS
Public Affairs None				
Public Interest Groups See mailing list	-3	Cotter	Mail	B,C,D
EPA Offices Oceans and Coastal Protection Division Regional Ocean Dumping Coordinators, Regions I, II, III, IV, VI and X PICO, Hawaii	-3 " "	Cotter " "	Mail " "	B,C,D " "
Other Persons to be Notified None				

Norman S. Wei, Senior Manager
Environmental Engineering
StarKist Seafood Company, Inc.
180 East Ocean Boulevard
Long Beach, CA 90802-4797

Maurice W. Callaghan
General Manager
StarKist Samoa, Inc.
P.O. Box 368
Pago Pago, American Samoa 96799

Thomas J. Gilmore
Counsel
Van Camp Seafood Company, Inc.
4510 Executive Drive, Suite 300
San Diego, CA 92121-4566

James McCafferty
General Counsel
Van Camp Seafood Company, Inc.
11555 Sorento Valley Road, Suite 100
San Diego, CA 92121-1396

David Dressel
Chief, Shellfish Sanitation Branch (HFF-334)
U.S. Food and Drug Administration, Room 3029
200 C Street, S.W.
Washington, D.C. 20204

David Redford
Office of Wetlands, Oceans and Watersheds (WH-556F)
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Vicki Tshako
U.S. Environmental Protection Agency
P.O. Box 50003
300 Ala Moana Boulevard, Room 5124
Honolulu, HI 96850

Michael Lee, Chief
Environmental Branch
Corps of Engineers, Honolulu District
Building 230
Fort Shafter, HI 96858-5440

Dr. John Naughton
NMFS, Southwest Region
Western Pacific Program Office
2570 Dole Street
Honolulu, HI 96822-2396

Kitty Simonds, Executive Director
Western Pacific Regional
Fishery Management Council
1164 Bishop Street, Suite 1405
Honolulu, HI 96813

James L. Cox, Director
Engineering and Environmental Affairs
Van Camp Seafood Company, Inc.
4510 Executive Drive, Suite 300
San Diego, CA 92121-3029

Michael P. Macready
General Manager
Samoa Packing Company, Inc.
P.O. Box 957
Pago Pago, American Samoa 96799

John Ciko
Assistant General Counsel
H.J. Heinz Company
P.O. Box 57
Pittsburgh, PA 15230-0057

Nancy Fanning
Director, Office of Territorial Liaison
Office of Territorial and International Affairs
Department of the Interior
Washington, D.C. 20460

John Lishman
Office of Wetlands, Oceans and Watersheds (WH-556F)
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Francesca Cava, Chief
Sanctuaries and Reserves Division
National Oceanic and Atmospheric Administration
1305 East-West Highway
Silver Spring, MD 20910

Chief
Engineering Division
Corps of Engineers, Honolulu District
Building 230
Fort Shafter, HI 96858-5440

Alan Marmelstein
U.S. Fish and Wildlife Service
300 Ala Moana Boulevard, Room 5302
P.O. Box 50007
Honolulu, HI 96580

Chief, Marine Safety Division
14th Coast Guard District
300 Ala Moana Boulevard, Room 9141
P.O. Box 50229
Honolulu, HI 96850

Kymberlee Keckler
Water Quality Branch (WQE-1900)
U.S. EPA, Region I
JFK Federal Building, Room 2203
Boston, MA 02203

Chief
Marine and Wetlands Protection Branch
U.S. EPA, Region II
26 Federal Plaza
New York, NY 10278

Bill Muir
Regional Oceanographer
U.S. EPA, Region III
841 Chestnut Building
Philadelphia, PA 19107

Suzy Cantor-McKinny
Marine and Estuarine Section
U.S. EPA, Region VI
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Patricia S. Port
Regional Environmental Officer
Department of Interior
450 Golden Gate Avenue, Room 14444
San Francisco, CA 94102

Regional Director
National Marine Fisheries Service
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, CA 90802-4213

Sheila Wiegman, Env. Coord.
American Samoa Environmental Protection Agency
Office of the Governor
American Samoa Government
Pago Pago, American Samoa 96799

Lelei Peau, Manager
American Samoa Coastal Management Program
Office of the Governor
American Samoa Government
Pago Pago, American Samoa 96799

Alfonso Galea'i, Director
Economic Development Planning Office
Office of the Governor
American Samoa Government
Pago Pago, American Samoa 96799

David Chatfield
Executive Director
Greenpeace Pacific Southwest
Fort Mason Center, Building E
San Francisco, CA 94123

Executive Director
Pacific Seafood Industries
P.O. Box 2511
Santa Barbara, CA 93120

Alex Lechich
Marine and Wetlands Protection Branch
U.S. EPA, Region II
26 Federal Plaza
New York, NY 10278

Robert Howard
Coastal Regulatory Unit
U.S. EPA, Region IV
345 Courtland Street, N.E.
Atlanta, GA 30365

John Malek
Environmental Evaluation Branch (WD-138)
U.S. EPA, Region X
1200 Sixth Avenue
Seattle, WA 98101

Rolf Wallentron
U.S. Fish and Wildlife Service
Lloyd Five Hundred Building, Suite 1692
500 Multnomah Street
Portland, OR 97232

Togipa Tausaga, Director
American Samoa Environmental Protection Agency
Office of the Governor
American Samoa Government
Pago Pago, American Samoa 96799

Lt. Cmdr. Randy Clark
U.S. Coast Guard Liaison Office
P.O. Box 249
Pago Pago, American Samoa 96799

Ray Tulafono, Director
Office of Marine and Wildlife Resources
P.O. Box 3730
Pago Pago, American Samoa 96799

Malaetasi Togufau
Attorney General
Office of the Governor
American Samoa Government
Pago Pago, American Samoa 96799

Executive Director
Fisheries Protection Institution
P.O. Box 867
Summerland, CA 93067

Dr. Jay D. Hair
Executive Vice President
National Wildlife Federation
1412 16th Street, N.W.
Washington, D.C. 20236

William Herlong
Covington and Burling
1201 Pennsylvania Avenue, N.W.
P.O. Box 7566
Washington, D.C. 20044

Dr. George Losey
Acting Director
Hawaii Institute of Marine Biology
P.O. Box 1346
Kaneohe, HI 96744

Johanna H. Wald
Natural Resources Defense Council
90 New Montgomery Street, Suite 620
San Francisco, CA 94105

John M. Ravnik
Seafarers International Union of North America
350 Fremont Street
San Francisco, CA 94105

Dr. Dorothy Soule
SOS Environmental
2361 Hill Drive
Los Angeles, CA 90041

Jerry Norris
Executive Director
Pacific Basin Development Council
567 South King Street, Suite 325
Honolulu, HI 96813

Ajay Agrawal
AGI International
1932 First Avenue, Suite 507
Seattle, Washington 98101

Executive Director
Oceanic Society Bay Chapter
Fort Mason, Building E
San Francisco, CA 94123

Jacqueline N. Miller
University of Hawaii
Environmental Center
Crawford 317, 2550 Campus Road
Honolulu, HI 96822

Dr. James Parrish
Hawaii Cooperative Fisheries Research Unit
2528 The Mall
University of Hawaii
Honolulu, HI 96822

John Enright
President
Le Vaomatua
P.O. Box B
Pago Pago, American Samoa 96799

Ronald A. Zumbrun
President
Pacific Legal Foundation
2700 Gateway Oaks Drive, #200
Sacramento, CA 95833

Dr. Joseph D. Germano
Director of Environmental Studies
Science Applications International Corporation
221 Third Street
Newport, RI 02840



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

James L. Cox, Director
Engineering and Environmental Affairs
Van Camp Seafood Company, Inc.
4510 Executive Drive, Suite 300
San Diego, California 92121-3029

MAY 27 1993

RE: Notice of Complete Application and Tentative Decision to Issue a Special Ocean Dumping Permit (OD 93-02) to VCS Samoa Packing

Dear Mr. Cox:

The U.S. Environmental Protection Agency (EPA), Region IX, has determined that VCS Samoa Packing's application for an ocean dumping permit is complete. We have prepared a draft special ocean dumping permit (OD 93-02) under Section 102 of the Marine Protection, Research and Sanctuaries Act (MPRSA) for VCS Samoa Packing's disposal operations. This special permit authorizes disposal of fish processing wastes into the Pacific Ocean off American Samoa for a three-year period. The designated disposal site is 5.45 nautical miles from land (14° 24.00' South latitude by 170° 38.20' West longitude) with a radius of 1.5 nautical miles in about 1,500 fathoms of water.

Information gathered during the term of this special permit and VCS Samoa Packing's previous special permit will be used to continue EPA's management of the fish processing waste disposal program off American Samoa. If, at any time, EPA Region IX determines that the disposal operations do not meet the ocean dumping regulations at 40 C.F.R. Parts 220 through 228, we will reconsider permission to use the designated site.

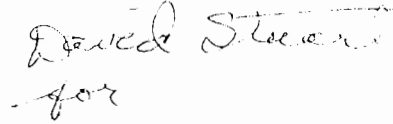
VCS Samoa Packing, as the permittee, will be required to conduct the site monitoring program contained in the special permit. Please note the requirements for reporting of field and laboratory analyses, analytical detection limits and dump site monitoring procedures.

EPA Region IX has developed the following documents to support the tentative determination for this special permit:

1. The public notice for EPA Region IX's action.
2. A fact sheet that describes the rationale behind EPA Region IX's decision.
3. The draft special permit which includes general and special conditions.

If you have comments on the proposed special permit, please submit your concerns in writing within 30 days of the publication date to me at the EPA address above. If you have any questions regarding the permit, you may call Patricia Young at (415) 744-1594, or me at (415) 744-1156.

Sincerely,

A handwritten signature in dark ink, appearing to read "Janet Y. Hashimoto". The signature is written in a cursive, flowing style.

Janet Y. Hashimoto, Chief
Marine Protection Section (W-7-1)

Enclosures (3)

cc: Togipa Tausaga, ASEPA
Sheila Wiegman, ASEPA
Lt. Cmdr. Randy Clark, USCG-LO Pago Pago
Michael Macready, VCS Samoa Packing Company
Norman Wei, StarKist Seafood
Maurice Callaghan, StarKist Samoa

NOTICE OF APPLICATION AND PROPOSED ACTION
U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) REGION IX
75 HAWTHORNE STREET
SAN FRANCISCO, CALIFORNIA 94105-3901

Applications for Permits to Transport
and Dump Materials into Ocean Waters

Public Notice for Ocean Dumping Permit Numbers
OD 93-01 and OD 93-02

Pursuant to Section 102 of the Marine Protection, Research and Sanctuaries Act (MPRSA) of 1972, as amended (33 U.S.C. § 1401 et seq.) and 40 C.F.R. § 222.3 of EPA's Ocean Dumping Regulations (42 Fed. Reg. 2462, Jan. 11, 1977), notice is hereby given by this office of complete applications for permits to transport and dispose fish processing wastes into ocean waters of Tutuila Island, American Samoa. The permit applicants are: STARKIST SEAFOOD COMPANY, INC. (an affiliate of H.J. HEINZ COMPANY), 180 East Ocean Blvd., Long Beach, CA 90802-4797 and VAN CAMP SEAFOOD COMPANY, INC., 4510 Executive Dr., Suite 300, San Diego, CA 92121-3029, for their respective subsidiary companies: STARKIST SAMOA, INC., P.O. Box 368, Pago Pago, American Samoa 96799 and VCS SAMOA PACKING COMPANY, INC., P.O. Box 957, Pago Pago, American Samoa 96799.

EPA has made a tentative decision to issue special ocean dumping permits to StarKist Samoa and VCS Samoa Packing Company for a three-year period. The Agency has determined that these permits are required for ocean disposal of fish processing wastes produced at canneries in Pago Pago, American Samoa. The fish processing wastes to be disposed from StarKist Samoa are: dissolved air flotation (DAF) sludge, cooker juice and press liquor. The fish processing wastes to be disposed from VCS Samoa Packing are: DAF sludge, precooker water and press water. Based on dilution levels expected at the designated ocean disposal site, the fish processing wastes are not expected to cause significant long-term impacts to oceanic water quality, marine ecosystems or human health.

The fish processing wastes will be disposed at an ocean disposal site 5.45 nautical miles southeast of Tutuila Island. The ocean disposal site has center coordinates of 14° 24.00' South latitude by 170° 38.20' West longitude and a radius of 1.5 nautical miles. The water depth at the disposal site is about 9,000 feet. This site was designated for use on February 6, 1990 (55 Fed. Reg. 3948) and was used by the two American Samoa canneries for disposal of fish processing wastes under MPRSA § 102 special permits OD 90-01 (StarKist Samoa) and OD 90-02 (VCS Samoa Packing Company) for three years. No significant long-term environmental impacts were found at the site during site monitoring activities.

During the term of special permits OD 93-01 and OD 93-02, the permittees must continue monitoring programs for fish processing waste streams, disposal vessel navigation and monthly ocean disposal site monitoring. Information compiled during the term of these permits and any previous information about ocean disposal of fish processing wastes off

American Samoa will be used by EPA Region IX to determine compliance with EPA's Ocean Dumping Regulations defined at 40 C.F.R. Parts 220 through 228 and the Special MPRSA § 102 permits.

SUMMARY OF INFORMATION AND TENTATIVE DETERMINATION

DAF sludge is waste material that remains after treatment of fish processing wastes to remove grease and suspended particulate matter. DAF sludge also contains aluminum sulfate or alum (an odor reducing chemical) and coagulant polymers (to coagulate suspended matter) that are added during the waste treatment process. Cooker juice or precooker water is a combination of stick water and other process water that collects under the steam precookers at the fish plants. Press liquor or press water is waste water produced at the fish meal plants when fish scrap is cooked and pressed before being dried to produce livestock food meal.

There are no changes in the volumes of fish processing wastes proposed for disposal by either applicant. The proposed disposal volumes are:

Fish Processing Waste	StarKist Samoa (gallons/day)	VCS Samoa Packing (gallons/day)	Total Volume (gallons/day)
DAF Sludge	60,000	60,000	120,000
Cooker Juice	100,000	0	100,000
Precooker Water	0	100,000	100,000
Press Liquor	40,000	0	40,000
Press Water	0	40,000	40,000
Daily Maximum	200,000	200,000	400,000

Based on EPA Region IX's review of data collected under the previous MPRSA § 102 special permits, the following changes are proposed for the new permits: 1) new permit limits have been calculated which are mostly lower than the previous permit limits, 2) analysis of heavy metals in the waste streams has been deleted because data showed low concentrations of all analytes, 3) analysis of petroleum hydrocarbons in the waste streams has been deleted because fish oils interfere with this analysis, 4) a new disposal vessel (the FV TASMAN SEA) is authorized and a new set of bioassays and plume modeling are required to confirm that disposal operations are similar to the previous permitted actions, 5) a computerized navigation system is required to plot the course of the vessel accurately during disposal operations, and 6) new reporting forms have been developed to aid in reporting permit monitoring information. All other general and special conditions are similar to existing conditions in MPRSA § 102 special permits OD 90-01 and OD 90-02.

INITIATION OF HEARINGS AND PUBLIC COMMENTS

Within 30 days of the date of this notice, any person may request a public hearing to consider the issuance of, or the conditions to be imposed upon, these permits. Any such request for a public hearing must: 1) be in writing, 2) identify the person requesting the hearing, 3) state any objections to the issuance of, or to the conditions to be imposed upon, these permits, and 4) state the issues which are proposed to be considered at the hearing. Under 40 C.F.R § 222.4, the Regional Administrator's determination on whether to hold a public hearing shall be based on whether the request presents genuine issues of policy or facts amenable to resolution by public hearing.

Comments on the tentative determination and requests for public hearings may be submitted in writing within 30 days of the date of publication of this notice to: Ms. Janet Y. Hashimoto, Chief, Marine Protection Section (W-7-1), U.S. Environmental Protection Agency, Region IX, 75 Hawthorne Street, San Francisco, CA 94105-3901, telephone (415) 744-1156.

The Administrative Record, which includes the applications, the draft permits, the fact sheet describing the permits and changes from special permits OD 90-01 and OD 90-02, is available for public review Monday to Friday from 9:00 a.m. to 4:00 p.m. at the: EPA Region IX Library, 13th Floor, 75 Hawthorne Street, San Francisco, CA, (415) 744-1510; EPA Pacific Island Contact Office, 300 Ala Moana Boulevard, Room 5124, Honolulu, HI, (808) 541-2710; and American Samoa EPA, Executive Office Building, Office of the Governor, Pago Pago, American Samoa, (684) 633-2304.

FACT SHEET
SPECIAL OCEAN DUMPING PERMITS
STARKIST SAMOA (OD 93-01) AND VCS SAMOA PACKING COMPANY (OD 93-02)
LOCATED IN PAGO PAGO, AMERICAN SAMOA

I. SUMMARY

The U.S. Environmental Protection Agency (EPA) Region IX has received complete applications from StarKist Samoa, Incorporated and VCS Samoa Packing Company, Incorporated for continued ocean disposal of fish processing wastes off Pago Pago, American Samoa. Disposal of fish processing wastes was permitted under two previous Marine Protection Research and Sanctuaries Act (MPRSA) § 102 Special Permits, OD 90-01 (StarKist Samoa) and OD 90-02 (VCS Samoa Packing). These permits began on July 31, 1990 and are effective until July 30, 1993. Disposal operations occurred at a designated site (55 FR 3948, February 6, 1990) located 5.45 nautical miles from land (14° 24.00' South latitude by 170° 38.20' West longitude) with a radius of 1.5 nautical miles in about 1,500 fathoms of water.

The Regional Administrator has tentatively decided to issue special ocean dumping permits (OD 93-01 and OD 93-02, respectively) to the applicants for ocean disposal of fish processing wastes over a three-year period. This decision has been made according to EPA's authority established in Title I of the Marine Protection, Research and Sanctuaries Act of 1972 (MPRSA) (33 U.S.C. section 1401 et seq.). Section 104B(k)(3)(B) of MPRSA contains an exclusion from the ban on disposal of industrial waste for tuna canneries in American Samoa.

The conditions and monitoring activities defined in OD 93-01 and OD 93-02 are similar to those in previous special and research ocean dumping permits. However, several changes have been made to: 1) permitted waste concentrations, 2) waste stream monitoring, 3) reporting requirements, and 4) disposal vessel operations. The changes are based on evaluation of waste stream data, confirmation of past toxicity tests and plume modeling and new navigation requirements for the disposal vessel.

EPA Region IX has tentatively decided to proceed with issuance of these special permits. Comments on our proposed action will be requested from the permit applicants, the American Samoa Government, Federal agencies, and the public as required under EPA's Ocean Dumping Regulations at 40 C.F.R Parts 220 through 228. Draft special permits and supporting documents are available for public review at the U.S. EPA's Regional Office in the Library on the 13th Floor at 75 Hawthorne Street, San Francisco, California; the U.S. EPA's Pacific Island Contact Office, 300 Ala Moana Boulevard, Honolulu, Hawaii; and the American Samoa Environmental Protection Agency, Executive Office Building, Office of the Governor, Pago Pago, American Samoa. These documents define the principal facts and significant legal, administrative and policy questions considered in the development of the special permits.

II. TENTATIVE DECISION

On December 8, 1992, StarKist Samoa and VCS Samoa Packing Company applied for ocean dumping permits to dispose of their fish cannery wastes at a designated ocean disposal site near Pago Pago, American Samoa. The designated site, used for the past 3 years by both canneries, is located 5.45 nautical miles from land (14° 24.00' South latitude by 170° 38.20' West longitude) with a radius of 1.5 nautical miles in 1,502 fathoms of water [40 C.F.R. § 228.12(b)(74)]. EPA Region IX is planning to grant their applications by issuing a special ocean dumping permit to each cannery which will last for three years.

Current information indicates that disposal of fish processing wastes at the designated site complies with EPA's Ocean Dumping Regulations at 40 C.F.R. Parts 227 and 228. Information obtained during the term of the special permits will be used to evaluate whether the disposal of fish processing wastes continues to comply with criteria defined in EPA's Ocean Dumping Regulations. The permittees must conduct a site monitoring program, including field and laboratory analyses. Results of the monitoring program will be used to document the extent of effects at the ocean disposal site and whether the dumping continues to comply with EPA's Ocean Dumping Regulations.

The proposed dumping during the term of the special permits is expected to have minimal impacts on human health and/or the marine environment, as demonstrated by the monitoring results of the previous special and research ocean dumping permits. The primary environmental impact of the proposed discharges would be short-term increases in turbidity, inorganic nutrients, oil and grease, and ammonia during the dumping events.

Past monitoring studies on the disposal of fish processing wastes off American Samoa show that water quality parameters return to ambient conditions at the boundary of the disposal site following the four hour period of initial mixing (40 C.F.R. § 227.29). To be certain that American Samoa Water Quality Standards would not be violated by the disposal of fish processing wastes, the center of the disposal site was designated 5.45 nautical miles offshore, and restrictive disposal rates and limitations on the waste material constituents are included in the special ocean dumping permits.

III. TERMS OF THE PERMIT

Special ocean dumping permits OD 93-01 and OD 93-02 are similar to OD 90-01 and OD 90-02, except those changes outlined above. The permittees have been disposing of fish cannery wastes, monitoring the waste streams and the disposal site according to the specifications of the past special and research permits.

A. Volumes of Waste Material Proposed for Ocean Disposal

Table 1. Volumes of Fish Processing Waste Authorize for Daily Disposal (see Special Condition 2.3 in both permits).

Fish Processing Waste	StarKist Samoa (gallons/day)	VCS Samoa Packing (gallons/day)	Total Volume (gallons/day)
DAF Sludge	60,000	60,000	120,000
Cooker Juice	100,000	0	100,000
Precooker Water	0	100,000	100,000
Press Liquor	40,000	0	40,000
Press Water	0	40,000	40,000
Daily Maximum	200,000	200,000	400,000

B. Waste Material Limitations in the Proposed Permits (see Special Condition 2.4 in both permits).

Table 2. Fish Processing Waste Limits for the StarKist Samoa's Permit #OD 93-01.

Physical or Chemical Parameter (units)^a	DAF Sludge	Cooker Juice	Press Liquor
Total Solids (mg/L)	163,430	114,180	327,870
Total Volatile Solids (mg/L)	136,180	63,400	292,280
5-Day BOD (mg/L)	232,320	185,150	310,790
Oil and Grease (mg/L)	64,100	11,810	112,080
Total Phosphorus (mg/L)	1,640	940	3,160
Total Nitrogen (mg/L)	7,020	7,560	20,360
Ammonia (mg/L)	1,830	690	1,390
pH (pH units)	5.3 to 6.5	5.9 to 6.3	5.8 to 6.5
Density (g/mL)	0.97 to 1.06	0.98 to 1.06	0.99 to 1.08

a = All calculated values were rounded to the nearest 10, except the density and pH ranges.

Table 3. Fish Processing Waste Limits for the VCS Samoa Packing's Permit #OD 93-02.

Physical or Chemical Parameter (units)_a	DAF Sludge	Precooker Water	Press Water
Total Solids (mg/L)	461,790	115,180	381,510
Total Volatile Solids (mg/L)	455,560	84,450	409,310
5-Day BOD (mg/L)	349,350	64,650	365,550
Oil and Grease (mg/L)	395,700	11,180	165,860
Total Phosphorus (mg/L)	3,790	1,850	2,950
Total Nitrogen (mg/L)	21,820	12,830	35,100
Ammonia (mg/L)	3,470	410	830
pH (pH units)	4.8 to 7.0	5.5 to 6.6	5.5 to 6.8
Density (g/mL)	0.86 to 1.05	0.95 to 1.06	0.96 to 1.06

a = All calculated values were rounded to the nearest 10, except the density and pH ranges.

C. Calculation of Permit Limits

1. Data from the previous special ocean dumping permit issued to each cannery were used to calculate all permit limits. The data for each cannery were evaluated separately.
2. The following calculations were made for each set of data using the LOTUS-123 spreadsheet program, version 2.2: maximum and minimum levels; mean, standard deviation and the number of data points.
3. Any data values greater than or less than the mean plus or minus 3 standard deviations, were considered to be outliers. Outlier data points were not used in the permit limit calculations.
4. All procedures for calculating permit limits are discussed in Sections 3.1.1 and 3.1.2 (pages 3-1 to 3-9) of EPA's Guidance Document for Ocean Dumping Permit (January 30, 1988).
 - a. The mean and standard deviation of each physical or chemical parameter were calculated by the following equations:

$$\text{Mean}_x = \frac{\sum x_i}{N}$$

x_i = each value for the i th constituent
 N = the number of data points reported

$$\text{Standard Deviation}_x = \frac{\sum \{x_i - \text{Mean}_x\}^2}{N - 1}$$

- b. The permit limit (Upper Limit) was determined by taking the mean and adding the product of a constant multiplied by the standard deviation.

$$\text{Upper Limit}_x = \text{Mean}_x + (k \times \text{Standard Deviation}_x)$$

k = a constant from Table 3-2 in EPA's 1988 Guidance Document.

- c. The constant (k) is based on N and two variables, probability (Γ) and proportion (P), used to compute permit limits. In this case, all limits were calculated with $\gamma = 0.95$ and $P = 0.95$.

IV. FACTORS CONSIDERED IN REACHING THE PERMIT DECISIONS

A. Overview of Disposal Operations

The two fish canneries in American Samoa, StarKist Samoa and VCS Samoa Packing Company, propose to dispose of fish processing wastes at an ocean dump site centered approximately 5.45 nautical miles south of Tutuila Island in 1,502 fathoms of water. The center coordinates of the site are: 14° 24.00' South latitude by 170° 38.20' West longitude. The fish processing wastes will be transported to the upcurrent quadrant of the site and discharged at a rate less than or equal to 1,400 gallons per minute, depending on the season, at a maximum speed of 10 knots (see Special Condition 4.4.1). The disposal vessel will discharge the fish processing wastes along an oval-shaped track with the center axis of the oval perpendicular to the current direction. All disposal will occur within the boundary of the designated ocean disposal site.

On each trip, the master of the disposal vessel will document current direction at the center of the disposal site. He will then proceed to a point 1.1 nautical miles upcurrent of the prevailing surface current to discharge the waste. The fish processing wastes may be discharged only after this procedure has been conducted. This will ensure that the waste plume has an adequate area for mixing within the disposal site boundary.

Receiving waters at the disposal site are outside the American Samoa territorial sea. Though the ocean disposal site is outside these waters, the MPRSA § 102 special permits are designed to comply with oceanic water quality standards defined in § 24.0207(g)(1-7) of the American Samoa Water Quality Standards (see Table 1 under General Condition 1.5). This

will ensure that oceanic waters inside American Samoa's territorial sea are not affected by the ocean disposal operations. Four hours after dumping has ceased, concentrations of the fish processing wastes must reach ambient levels (40 C.F.R. section 227.29) at the disposal site boundary. Disposal site monitoring requirements are contained in the special permits. EPA Region IX will evaluate potential impacts to water quality based on the site monitoring reports.

B. Changes from the Previous MPRSA § 102 Special Permits

1. A new ocean disposal vessel will be authorized for the 1993 special permits (see page 1 of each permit). The MV ASTRO will be replaced by the FV TASMAN SEA (formerly the FV BLUE NORTH). The new disposal vessel is owned by Blue North Fisheries, Inc., at 1130 N.W. 45th Street, Seattle, WA 98107-4626.
2. EPA Region IX reviewed 29-30 months of waste stream monitoring data submitted by each permittee. The characteristics of the waste streams at the two canneries are entirely different; therefore, separate permits were necessary. Appendix A of this fact sheet contains the tables used to calculate the new permit limits for each permittee's waste stream defined in Section III.B above. The last part of each table shows the numerical changes from the previous special permits compared to the proposed special permits.
 - a. In general, most of the limits for StarKist Samoa's waste stream were reduced (see Appendix A, Tables 1-3). Some limits were reduced as much as 90%. The only exceptions are: Cooker Juice oil and grease (+145%), Press Liquor total solids (+21%), Press Liquor total phosphorus (+59%), and Press Liquor oil and grease (+80%). These increases in the waste stream limits are required because earlier waste stream data do not reflect the present waste stream characteristics.
 - b. Similarly, most of the limits for VCS Samoa Packing's waste streams were reduced (see Appendix A, Tables 4-6). Some limits were reduced as much as 85%. The only exceptions are: DAF Sludge total nitrogen (+46%), DAF Sludge oil and grease (+40%), DAF Sludge total volatile solids (+48%), DAF Sludge ammonia (+35%), Precooker Water 5-day biological oxygen demand (+7%), Press Water total nitrogen (+10%) and Press Water total volatile solids (+6%). These increases in the waste stream limits are required because earlier waste stream data did not properly characterize these waste streams.
3. Reports analyzing metal and petroleum hydrocarbon concentrations in the waste streams were submitted by StarKist Samoa (July 29, 1993) and VCS Samoa Packing (July 31, 1993). These reports were required under Special Condition 3.3.5 in the previous MPRSA § 102 special permits. EPA Region IX reviewed the permittees' analyses of metal and petroleum hydrocarbon concentrations and the permittees' explanation of the sources. The reports document low concentrations of metals and petroleum hydrocarbons for each waste stream.

EPA Region IX reviewed data submitted with the last 29-30 months of reports and we found low concentrations of metals in the waste streams. Table 4 below displays the mean and standard deviation for the concentrations listed in the tables of Appendix A. High values of aluminum in the DAF Sludge are expected because aluminum sulfate is added as an odor reducing agent. The high values for petroleum hydrocarbons are most likely a result of interference in the analysis by high concentrations of fish oils.

Table 4. Concentrations of Metals and Total Recoverable Petroleum Hydrocarbons in StarKist Samoa (SK) and VCS Samoa Packing (VCS) Waste Streams Reported for MPRSA § 102 Permits OD 90-01 and OD 90-02.

DAF	Al (mg/L)	Cr (mg/L)	Ni (mg/L)	Cu (mg/L)	Pb (mg/L)	Cd (mg/L)	Hg (mg/L)	TRPH (mg/L)
SK Mean	473.00	0.88	0.74	4.70	0.95	0.24	0.009	1924.00
SK SD	336.00	0.42	0.40	2.78	0.74	0.13	0.006	841.00
VCS Mean	86.00	2.10	2.06	6.08	2.81	0.86	0.016	13393.00
VCS SD	59.00	1.14	1.71	3.26	1.96	0.61	0.010	9339.00
CJ - PC								
SK Mean	1.12	0.12	0.26	0.37	0.17	0.20	0.006	64.00
SK SD	0.90	0.06	0.22	0.11	0.14	0.06	0.002	26.00
VCS Mean	1.02	0.13	0.25	0.29	0.23	0.19	0.004	119.00
VCS SD	0.67	0.05	0.21	0.13	0.24	0.10	0.002	94.00
PL - PW								
SK Mean	1.81	0.15	0.32	.090	0.23	0.49	0.017	961.00
SK SD	1.12	0.07	0.24	0.37	0.22	0.22	0.008	531.00
VCS Mean	0.95	0.17	0.29	0.49	0.28	0.21	0.006	2471.00
VCS SD	0.57	0.10	0.24	0.18	0.24	0.09	0.002	2478.00

DAF = Dissolved Air Flotation Sludge

CJ - PC = StarKist Samoa Cooker Juice and VCS Samoa Packing Precooker Water

PL - PW = StarKist Samoa Press Liquor and VCS Samoa Packing Press Water

SD = Standard Deviation

EPA Region IX determined that these levels do not pose a significant risk to the marine environment or human health based on the design of disposal operations and dilution at the disposal site. Therefore, requirements to analyze metals and petroleum hydrocarbons in the permittees' waste streams have been deleted from the new permits.

4. Two new data reporting forms were developed for the 1993 ocean dumping permits (see Appendix B of each permit). These forms, and data submitted on a computer diskette compatible with EPA Region IX's computer system, will streamline the 6-month data reporting requirements.
5. The canneries must conduct confirmatory suspended particulate phase bioassays within one year of the effective date of the permit (see Special Condition 3.3.5). These tests are required because the nature of the fish processing wastes has changed from the initial characterization of the waste streams conducted more than 5 years ago. Results of the new bioassays will be used to calculate new Limiting Permissible Concentration (LPC) values. The new LPC values will be used to rerun the plume model used to predict dilution and discharge rates at the ocean disposal site. A report will be prepared by each permittee discussing the test procedures and results of the bioassay tests and new model runs. EPA Region IX will review the report to determine whether any changes in the ocean dumping permits are necessary.
6. A computerized navigation system is specified in Special Condition 4.3.4 and 4.5 to simplify plotting of the disposal vessel's track once inside the ocean disposal site and during disposal operations. This system will provide a continuous plot of the disposal vessel's track and a hard copy of each plot will be sent with the 6-month report.

V. EPA'S AUTHORITY TO ISSUE OCEAN DUMPING PERMITS

- A. EPA's authority to issue special ocean dumping permits is defined under Title I of MPRSA and at 40 C.F.R. § 220.4. The authority to issue special permits was delegated to the Regional Administrator on January 11, 1977 (42 FR 2462). The Regional Administrator's authority to issue special permits was redelegated to the EPA Region IX Water Division Director on January 25, 1982 (EPA Region IX Order R1250.5A).
- B. Section 102 of MPRSA authorizes EPA to issue permits for ocean dumping. The Agency must determine that the proposed dumping will not unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities. In addition to these requirements, EPA must evaluate each permit application to determine whether the dumping will comply with the criteria at 40 C.F.R. Part 227 and whether the designated site complies with the criteria at 40 C.F.R. Part 228.
- C. The American Samoa Fish Processing Waste disposal site was designated, through the publication of a Final Rule, on February 6, 1990 (55 FR 3948) at 40 C.F.R. § 228.12(b)(74). The designation process consisted of publication of an environmental impact statement (EIS) according to EPA's voluntary EIS policy. The draft EIS for this project was published on September 16, 1988 (53 FR 38118) and a final EIS was published on March 3, 1989 (54 FR 9083). The final rule designating the ocean disposal site was published on February 6, 1990 (55 FR 3948).

- D. EPA Region IX will periodically evaluate the special permits to determine whether the fish canneries disposal operations comply with the special permit conditions. If unacceptable impacts are detected at the site (40 C.F.R. section 228.10), or significant permit violations are found, EPA will determine whether use of the site should be restricted (40 C.F.R. sections 228.10 and 228.11), or whether enforcement actions should be initiated under MPRSA § 105.

VI. ADMINISTRATIVE PROCEDURES AND THE PUBLIC HEARING PROCESS

- A. The processing of an ocean dumping permit consists of the following actions:

1. EPA receives a completed application (40 C.F.R. § 221).
2. EPA issues a tentative decision whether to grant or deny the special permit (40 C.F.R. § 222.2). A draft permit is the means by which EPA documents the intent to grant an ocean dumping permit.
3. A public notice is issued to announce EPA's intent to issue the permit (40 C.F.R. § 222.3). The notice contains the following elements: summary, tentative determination, factors considered in reaching the tentative determination, hearing process, and the location of all information on the draft permit. Public notices describing EPA's intent to issue a permit are published in a daily newspaper in closest proximity to the proposed dump site and in a daily newspaper in the city in which EPA's Regional Office is located.
4. Before a final decision can be made on the special permit, formal consultation must be documented with the following agencies: American Samoa Government, U.S. Army Corps of Engineers, U.S. Coast Guard, National Marine Fisheries Service, U.S. Fish and Wildlife Service and the Shellfish Sanitation Branch of the Food and Drug Administration.

B. Initiation of a Public Hearing

1. Within 30 days of the date of the public notice, any person may request a public hearing to consider issuance or denial of the special permit or conditions to be imposed upon this permit. Any request for a hearing must be made in writing; must identify the person requesting the hearing; and must clearly state any objections to issuance or denial of the permit or to the conditions to be imposed upon the permit, and the issues to be considered at the hearing. According to 40 C.F.R. § 222.4, the Regional Administrator may schedule a hearing, at his discretion, based on genuine issues presented in the written request.
2. Upon receipt of a written request presenting genuine issues amenable to resolution by a public hearing, the Regional Administrator may determine a time and place for the hearing and publish a notice of the hearing. All interested parties will be invited to express their views on the proposed

issuance or denial of the permit at the hearing if one is held. If a request for a public hearing is made within 30 days of the date of this notice and does not meet the above criteria, the Regional Administrator must advise the requesting person of his decision to deny the hearing in writing and proceed to rule on the application.

3. Following adjournment of the public hearing, the Presiding Officer, appointed by the Regional Administrator, prepares written recommendations about the issuance, denial or conditions to be imposed upon the permit after full consideration of the views and arguments expressed at the hearing (40 C.F.R. §§ 222.6 through 222.8). The Presiding Officer's recommendations and the record of the hearing are forwarded to the Regional Administrator within 30 days of the hearing.
4. The Regional Administrator makes a determination whether to issue, deny or impose conditions on the permit within 30 days of receipt of the Presiding Officer's recommendations. He must give written notice of the decision to any person appearing at the public hearing (40 C.F.R. § 222.9).
5. A final permit becomes effective 10 days after issuance, if no requests for an adjudicatory hearing are received. Requests for an adjudicatory hearing may be made to the Regional Administrator within 10 days of receipt of the notice to issue or deny the permit (40 C.F.R. § 222.10 and § 222.11). An appeal of the Regional Administrator's adjudicatory hearing decision may be made in writing to the Administrator of EPA within 10 days following receipt of the Regional Administrator's determination on the need for an adjudicatory hearing (40 C.F.R. § 222.12).

VII. ADDITIONAL INFORMATION

For further information on the special permits, requests for copies of the permits or questions pertaining to MPRSA regulations, please contact either of the following people at EPA Region IX:

Janet Y. Hashimoto, Chief
Marine Protection Section (W-7-1)
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, California 94105-3901
(415) 744-1156

Patricia Young
Office of Pacific Island and Native American Programs (E-4)
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, California 94105-3901
(415) 744-1594

APPENDIX A

FACT SHEET

**WASTE STREAM DATA
FROM STARKIST SAMOA AND VCS SAMOA PACKING**

Table 1. StarKist Samoa DAF Sludge Data from August 1990 to January 1993 under OD 90-01.

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
AUG 1990	113,000	172,000	1,018	*21,000	39,000	5.55	87,000	1.04	1,800
SEP 1990	117,000	135,000	1,468	6,600	32,000	5.66	90,000	1.02	*5,485
OCT 1990	44,000	121,500	527	2,100	13,000	6.07	23,000	1.03	*3,200
NOV 1990	60,000	73,500	1,513	500	24,000	5.75	34,000	1.02	247
DEC 1990	118,000	62,000	950	2,567	59,000	6.39	88,000	1.00	2,120
JAN 1991	176,500	136,500	610	3,983	48,000	6.37	150,500	1.01	1,543
FEB 1991	52,000	28,500	285	2,900	8,500	5.85	30,000	1.01	1,800
MAR 1991	121,000	175,500	1,370	4,400	25,000	5.57	93,000	1.03	670
APR 1991	61,000	242,750	547	2,400	17,000	5.72	37,000	1.02	923
MAY 1991	163,000	183,000	1,080	7,600	65,000	5.51	139,000	1.02	747
JUN 1991	77,000	137,500	820	2,840	14,000	6.28	56,000	1.02	300
JUL 1991	87,000	174,500	900	4,200	20,000	5.82	65,000	1.02	580
AUG 1991	74,000	174,500	493	6,100	18,000	5.95	53,000	1.00	530
SEP 1991	122,000	208,000	660	3,900	59,000	5.73	100,000	1.03	630
OCT 1991	64,000	68,400	840	3,040	23,500	5.90	44,000	1.02	500
NOV 1991	95,000	50,087	904	3,250	14,000	6.12	74,000	1.04	390
DEC 1991	99,000	28,333	865	2,420	9,000	5.68	49,000	1.02	364
JAN 1992	55,000	78,634	570	1,780	11,400	5.85	30,000	1.01	190
FEB 1992	48,600	14,751	593	1,600	11,000	6.01	29,000	1.02	222
MAR 1992	41,000	40,262	213	630	9,400	5.80	26,000	1.00	170
APR 1992	115,000	119,225	480	580	33,100	5.72	101,000	0.97	472
MAY 1992	35,000	54,097	460	1,350	11,000	6.60	22,000	0.98	440
JUN 1992	91,000	74,725	1,370	3,420	39,600	6.11	77,000	0.98	357
JUL 1992	59,500	101,883	700	5,850	19,600	5.95	35,600	0.97	880
AUG 1992	48,000	48,500	750	1,640	12,500	5.64	38,000	1.02	110
SEP 1992	52,100	59,054	1,180	3,000	14,000	5.90	35,500	1.01	500

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
OCT 1992	110,000	56,074	1,670	4,800	24,000	6.12	82,000	<u>0.93</u>	927
NOV 1992	106,000	64,348	660	2,300	64,300	5.63	84,700	0.99	490
DEC 1992	91,300	58,193	990	1,830	30,100	5.68	62,100	1.03	240
JAN 1993	71,100	60,319	570	3,000	23,100	5.73	47,000	1.05	250
Maximum	176,500	242,750	1,670	7,600	65,000	6.6	150,500	1.05	2,120
Minimum	35,000	14,751	213	500	8,500	5.5	22,000	0.97	110
Number	30	30	30	29	30	30	30	29	28
Mean	85,570	100,055	835	3,123	26,370	5.9	62,747	1.01	657
Std. Dev.	35,073	59,579	364	1,756	16,996	0.3	33,077	0.02	526
Outlier +	190,788	278,791	1,928	8,391	77,358	6.7	161,977	1.07	2,235
Outlier -	-19,648	-78,682	-257	-2,144	-24,618	5.1	-36,483	0.95	-921
DAF Sludge Data With Outliers Removed and Recommended Permit Limits									
Number	30	30	30	29	30	30	30	29	28
Mean	85,570	100,055	835	3,123	26,370	5.9	62,747	1.01	657
Std. Dev.	35,073	59,579	364	1,756	16,996	0.3	33,077	0.02	526
Upper Limit	163,432	232,319	1,644	7,021	64,101	5.3	136,177	1.06	1,825
Lower Limit						6.5		0.97	
Rounded Limit	163,430	232,320	1,640	7,020	64,100		136,180		1,830
PRSA Section 102 Special Permit #OD 90-01 DAF Sludge Limits									
Upper Limit	230,460	376,520	3,050	18,100	129,590	5.5	182,210	1.07	7,500
Lower Limit						7.0		0.92	
Changes in DAF Sludge Limits from OD 90-01 to OD 93-01									
Upper Limit	-67,030	-144,200	-1,410	-11,080	-65,490	-0.2	-46,030	-0.01	-5,670
Percent Change	-29	-38	-46	-61	-51	-4	-25	-1	-76
Lower Limit						-0.5		0.05	
Percent Change						-7		5	

* = Violation of MPRSA § 102 Permit #OD 90-01, NA = Not Available, Underlined Value = Outlier not included in limit calculations.

Table 2. StarKist Samoa Cooker Juice Data from August 1990 to January 1993 under OD 90-01.

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
AUG 1990	58,000	98,000	647	5,200	600	6.09	42,000	1.02	<u>3,865</u>
SEP 1990	34,000	107,500	430	4,000	2,500	6.26	25,000	1.00	<u>1,695</u>
OCT 1990	56,000	69,000	530	4,300	960	6.30	41,000	1.02	<u>3,850</u>
NOV 1990	66,000	56,000	824	4,700	1,300	5.98	49,000	1.03	238
DEC 1990	42,000	47,000	802	4,300	500	6.08	28,000	1.00	406
JAN 1991	43,500	64,500	293	3,251	2,990	6.05	30,500	1.01	236
FEB 1991	31,000	25,500	360	2,200	610	5.92	20,000	1.01	130
MAR 1991	56,000	158,000	590	5,200	410	6.04	38,000	1.02	215
APR 1991	55,000	198,250	616	4,900	2,200	6.16	37,000	1.02	761
MAY 1991	60,000	171,500	785	5,930	350	6.12	40,000	1.01	139
JUN 1991	56,000	111,250	580	5,110	690	6.32	39,000	1.02	260
JUL 1991	43,000	152,000	520	3,400	2,200	6.19	30,000	1.01	270
AUG 1991	74,500	165,000	632	6,100	4,300	6.02	51,000	0.99	295
SEP 1991	79,000	137,500	810	5,200	1,400	6.07	51,000	1.06	326
OCT 1991	129,000	85,050	500	6,270	*12,600	5.98	<u>102,000</u>	1.03	270
NOV 1991	48,000	35,541	541	3,280	2,300	6.11	33,000	1.01	170
DEC 1991	79,000	35,333	728	5,080	*13,400	5.98	56,000	1.02	262
JAN 1992	88,000	86,186	710	5,900	2,100	6.08	56,000	1.04	300
FEB 1992	57,000	39,837	594	4,600	*6,800	6.26	35,000	1.02	762
MAR 1992	63,000	45,016	585	4,480	2,600	6.06	44,000	1.03	380
APR 1992	72,200	54,947	690	5,900	*9,000	6.06	53,500	1.00	350
MAY 1992	68,000	44,799	680	5,900	4,000	6.14	48,000	1.02	220
JUN 1992	58,000	43,429	457	5,330	<u>93</u>	6.07	34,000	1.03	348
JUL 1992	76,800	60,002	540	6,390	*12,600	6.01	55,500	1.03	220
AUG 1992	71,000	50,346	830	6,460	2,820	5.86	44,000	0.98	440
SEP 1992	61,500	43,628	650	6,480	790	6.12	50,600	0.99	220

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
OCT 1992	62,000	47,067	756	5,600	1,700	6.21	42,000	1.06	228
NOV 1992	78,200	35,976	640	<u>9,500</u>	2,010	6.10	53,900	1.04	690
DEC 1992	72,000	47,263	860	6,630	340	5.98	41,300	1.01	190
JAN 1993	131,000	56,181	690	6,100	<u>*23,000</u>	6.05	<u>103,000</u>	1.01	300
Maximum	131,000	198,250	860	6,630	13,400	6.3	56,000	1.06	762
Minimum	31,000	25,500	293	2,200	340	5.9	20,000	0.98	130
Number	30	30	30	29	28	30	28	30	27
Mean	65,623	79,053	629	5,110	3,360	6.1	41,725	1.02	319
Std. Dev.	21,870	47,792	139	1,105	3,808	0.1	9,765	0.02	165
Outlier +	131,232	222,429	1,045	8,426	14,784	6.4	71,019	1.07	816
Outlier -	14	-64,322	213	1,794	-8,065	5.8	12,431	0.96	-177
Cooker Juice Data With Outliers Removed and Recommended Permit Limits									
Number	30	30	30	29	28	30	28	30	27
Mean	65,623	79,053	629	5,110	3,360	6.1	41,725	1.02	319
Std. Dev.	21,870	47,792	139	1,105	3,808	0.1	9,765	0.02	165
Upper Limit	114,174	185,151	937	7,564	11,814	5.9	63,402	1.06	687
Lower Limit						6.3		0.98	
Rounded Limit	114,180	185,150	940	7,560	11,810		63,400		690
MPRSA Section 102 Special Permit #OD 90-01 Cooker Juice Limits									
Upper Limit	158,290	365,450	1,150	21,380	4,830	5.5	146,900	1.06	21,200
Lower Limit						7.0		0.97	
Changes in Cooker Juice Limits from OD 90-01 to OD 93-01									
Upper Limit	-44,110	-180,300	-210	-13,820	6,980	0.4	-83,500	0.00	-20,510
Percent Change	-28	-49	-18	-65	145	6	-57	0	-97
Lower Limit						-0.7		0.01	
Percent Change						-10		1	

* = Violation of MPRSA § 102 Permit #OD 90-01, NA = Not Available, Underlined Value = Outlier not included in limit calculations.

Table 3. StarKist Samoa Press Liquor Data from August 1990 to January 1993 under OD 90-01.

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
AUG 1990	245,000	164,000	*2,030	23,000	50,000	5.93	221,000	1.04	<u>9,300</u>
SEP 1990	260,000	189,000	*2,242	12,400	*120,000	6.08	244,000	1.03	<u>3,845</u>
OCT 1990	245,000	157,500	654	10,000	*83,000	6.28	230,000	<u>0.94</u>	<u>3,050</u>
NOV 1990	200,000	158,500	1,105	8,800	*89,000	6.25	180,000	1.03	360
DEC 1990	205,000	143,000	1,257	9,650	54,000	6.28	184,000	1.04	565
JAN 1991	207,000	161,500	648	14,487	50,500	6.16	187,000	1.02	360
FEB 1991	190,000	138,000	1,850	11,000	40,000	6.22	165,000	1.06	280
MAR 1991	250,000	241,000	1,590	10,600	60,000	6.03	231,000	1.05	350
APR 1991	210,000	327,375	1,120	13,900	*72,000	6.15	185,000	1.02	943
MAY 1991	231,000	76,500	*2,430	13,000	*63,000	6.10	201,000	1.02	1,030
JUN 1991	178,000	270,500	1,540	10,200	45,000	6.21	159,000	1.01	510
JUL 1991	242,000	183,000	*2,200	11,400	41,000	6.34	216,000	1.07	800
AUG 1991	146,000	212,000	1,000	10,500	32,000	6.11	129,000	0.97	325
SEP 1991	155,000	230,500	1,300	7,400	38,000	5.95	127,000	1.04	495
OCT 1991	149,000	137,200	1,470	10,700	28,100	5.99	121,000	1.00	530
NOV 1991	76,000	73,928	800	6,000	8,400	6.08	54,000	1.03	280
DEC 1991	240,000	116,033	*2,180	14,100	43,800	5.95	212,000	1.02	503
JAN 1992	237,000	287,080	1,900	12,600	43,000	6.25	206,000	1.04	890
FEB 1992	224,000	131,039	1,660	11,600	47,000	6.22	203,000	1.04	782
MAR 1992	271,000	189,000	*3,620	13,600	*53,000	6.45	229,000	1.03	1,490
APR 1992	256,000	220,167	1,600	14,100	*80,400	6.30	232,000	1.04	1,160
MAY 1992	*288,000	253,917	1,600	13,000	*114,500	6.13	224,000	1.06	370
JUN 1992	198,000	256,800	1,350	13,600	50,500	6.19	172,000	1.04	247
JUL 1992	116,000	124,542	760	9,160	30,600	6.02	90,300	1.02	240
AUG 1992	190,000	159,667	1,940	13,700	*91,000	5.95	122,000	1.03	520
SEP 1992	203,000	189,933	1,490	17,800	52,700	6.26	179,000	1.01	660

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
OCT 1992	49,000	133,347	633	5,200	18,000	6.52	37,000	1.04	1,080
NOV 1992	171,000	142,510	1,070	6,700	*75,500	6.08	152,000	1.02	1,160
DEC 1992	268,000	163,470	*3,100	19,200	49,500	5.95	217,000	1.05	1,000
JAN 1993	240,000	157,000	*2,300	15,300	59,900	6.18	192,000	1.06	550
Maximum	288,000	327,375	3,620	23,000	120,000	6.5	244,000	1.07	1,490
Minimum	49,000	73,928	633	5,200	8,400	5.9	37,000	0.97	240
Number	30	30	30	30	30	30	30	29	27
Mean	204,667	179,600	1,615	12,090	56,113	6.2	176,710	1.03	647
Std. Dev.	55,497	59,096	697	3,725	25,212	0.1	52,059	0.02	335
Outlier +	371,159	356,887	3,705	23,265	131,750	6.6	332,887	1.09	1,651
Outlier -	38,175	2,314	-476	915	-19,523	5.7	20,533	0.97	-356
Press Liquor Data With Outliers Removed and Recommended Permit Limits									
Number	30	30	30	30	30	30	30	29	27
Mean	204,667	179,600	1,615	12,090	56,113	6.2	176,710	1.03	647
Std. Dev.	55,497	59,096	697	3,725	25,212	0.1	52,059	0.02	335
Upper Limit	327,871	310,792	3,162	20,359	112,084	5.8	292,281	1.08	1,390
Lower Limit						6.5		0.99	
Rounded Limit	327,870	310,790	3,160	20,360	112,080		292,280		1,390
MPRSA Section 102 Special Permit #OD 90-01 Press Liquor Limits									
Upper Limit	271,920	399,090	1,990	31,550	62,150	5.5	385,630	1.07	21,170
Lower Limit						7.0		0.96	
Changes in Press Liquor Limits from OD 90-01 to OD 93-01									
Upper Limit	55,950	-88,300	1,170	-11,190	49,930	0.3	-93,350	0.01	-19,780
Percent Change	21	-22	59	-35	80	6	-24	1	-93
Lower Limit						-0.5		0.03	
Percent Change						-7		3	

* = Violation of MPRSA § 102 Permit #OD 90-01, NA = Not Available, Underlined Value = Outlier not included in limit calculations.

Table 4. VCS Samoa Packing DAF Sludge Data from August 1990 to December 1992 under OD 90-02.

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)	pH (pH units)
AUG 1990	140,000	140,000	2,050	6,800	11,500	130,000	0.97	*3,050	6.8
SEP 1990	41,500	97,000	405	4,900	20,000	30,000	1.02	*3,650	6.8
OCT 1990	142,000	286,000	820	7,900	108,000	129,000	0.99	*2,800	6.9
NOV 1990	150,000	96,000	770	2,900	39,000	141,000	0.87	310	*5.3
DEC 1990	168,000	NA	1,900	*15,400	60,000	158,000	0.98	1,600	6.3
JAN 1991	105,000	NA	3,350	NA	74,180	76,000	0.95	*3,000	6.2
FEB 1991	179,000	NA	2,300	8,400	89,480	161,000	0.98	990	5.8
MAR 1991	175,000	86,000	1,450	NA	22,775	162,000	1.01	1,650	6.1
APR 1991	395,000	NA	1,500	NA	263,150	*375,000	0.98	1,470	5.7
MAY 1991	228,000	139,000	*4,250	NA	99,115	215,000	0.98	1,850	5.7
JUN 1991	327,000	NA	1,950	8,400	205,270	306,000	0.98	590	*5.2
JUL 1991	349,000	246,000	750	6,272	126,000	*337,000	0.99	1,220	5.7
AUG 1991	236,000	132,000	1,150	1,344	51,000	219,000	0.96	1,000	5.5
SEP 1991	266,000	108,000	2,300	560	187,850	246,000	0.97	830	*5.2
OCT 1991	234,000	232,000	1,050	2,240	131,300	227,000	0.95	1,090	6.0
NOV 1991	258,000	NA	2,100	11,200	133,600	236,000	0.98	1,400	5.6
DEC 1991	432,000	NA	3,000	*19,600	280,000	*421,000	0.95	1,130	6.0
JAN 1992	254,100	221,000	2,700	8,400	*373,000	*414,000	0.93	190	*4.7
FEB 1992	315,400	200,000	300	3,150	*299,000	*360,000	0.91	1,440	5.5
MAR 1992	296,700	<u>*518,000</u>	<u>*7,200</u>	4,900	182,000	*336,000	0.99	580	5.7
APR 1992	222,100	2,220	1,800	*17,500	154,780	251,000	0.99	2,020	5.9
MAY 1992	231,000	<u>*4,780,000</u>	1,300	12,600	*350,440	281,000	0.94	930	5.9
JUN 1992	294,000	290,000	1,200	14,000	*428,160	280,000	0.88	463	5.5
JUL 1992	114,000	136,000	1,700	11,900	173,000	100,000	*0.83	670	5.6
AUG 1992	130,000	260,000	3,300	*19,600	3,700	95,000	0.98	1,810	5.8
SEP 1992	52,000	42,300	1,800	12,880	62,600	36,000	0.93	706	6.3

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)	pH (pH units)
OCT 1992	159,000	182,800	1,000	6,720	173,600	148,000	0.92	640	5.9
NOV 1992	151,000	151,000	1,500	15,120	151,720	137,000	0.89	*3,300	6.3
DEC 1992	*494,000	38,700	1,200	10,640	99,320	44,500	0.97	730	6.2
Maximum	494,000	290,000	4,250	19,600	428,160	421,000	1.02	3,650	6.9
Minimum	41,500	2,220	300	560	3,700	30,000	0.83	190	4.7
Number	29	20	28	25	29	29	29	29	29
Mean	225,476	154,301	1,746	9,333	150,122	208,672	0.95	1,418	5.9
Std. Dev.	106,449	81,405	921	5,448	110,620	111,212	0.04	924	0.5
Outlier +	544,824	398,516	4,508	25,676	481,981	542,307	1.08	4,189	7.3
Outlier -	-93,872	-89,914	-1,016	-7,010	-181,737	-124,962	0.82	-1,354	4.4
DAF Sludge Data With Outliers Removed and Recommended Permit Limits									
Number	29	20	28	25	29	29	29	29	29
Mean	225,476	154,301	1,746	9,333	150,122	208,672	0.95	1,418	5.9
Std. Dev.	106,449	81,405	921	5,448	110,620	111,212	0.04	924	0.5
Upper Limit	461,794	349,348	3,790	21,819	395,698	455,562	1.05	3,468	4.8
Lower Limit							0.86		7.0
Rounded Limit	461,790	349,350	3,790	21,820	395,700	455,560		3,470	
MPRSA Section 102 Special Permit #OD 90-02 DAF Sludge Limits									
Upper Limit	492,000	443,840	3,910	14,950	282,750	308,700	1.08	2,570	5.5
Lower Limit							0.85		7.0
Changes in DAF Sludge Limits from OD 90-02 to OD 93-02									
Upper Limit	-30,210	-94,490	-120	6,870	112,950	146,860	-0.03	900	-0.7
Percent Change	-6	-21	-3	46	40	48	-3	35	-13
Lower Limit							0.01		0
Percent Change							1		0

* = Violation of MPRSA § 102 Permit #OD 90-02, NA = Not Available, Underlined Value = Outlier not included in limit calculations.

Table 5. VCS Samoa Packing Precooker Water Data from August 1990 to December 1992 under OD 90-02.

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)	pH (pH units)
AUG 1990	11,000	6,400	120	890	200	7,700	1.00	<u>590</u>	6.2
SEP 1990	91,000	40,000	970	8,300	7,300	73,000	1.03	<u>780</u>	6.2
OCT 1990	NA	NA	NA	NA	NA	NA	NA	NA	NA
NOV 1990	<u>*435,000</u>	58,000	460	2,700	<u>34,000</u>	<u>*429,000</u>	1.00	430	6.1
DEC 1990	73,000	NA	950	9,520	<200	50,000	1.03	130	6.1
JAN 1991	102,000	NA	1,100	4,480	<u>23,771</u>	76,000	1.03	260	6.0
FEB 1991	45,000	NA	1,300	5,600	2,866	28,000	0.95	90	6.2
MAR 1991	46,000	21,000	850	4,200	2,499	32,000	1.02	130	6.6
APR 1991	52,000	NA	950	4,340	5,229	35,000	1.04	135	5.9
MAY 1991	58,000	33,000	1,450	2,800	7,212	47,000	1.01	235	5.8
JUN 1991	83,000	NA	1,675	5,600	7,814	55,000	1.04	220	5.9
JUL 1991	95,000	37,000	1,025	1,820	3,000	69,000	1.03	200	5.9
AUG 1991	51,000	35,000	1,150	1,750	11,300	45,000	0.99	110	6.2
SEP 1991	62,000	30,000	575	2,240	<u>48,630</u>	53,000	1.04	110	6.1
OCT 1991	72,000	40,000	725	700	2,100	48,000	1.02	225	6.3
NOV 1991	65,000	33,000	900	6,020	7,800	50,000	0.99	120	6.4
DEC 1991	31,000	NA	1,250	3,500	7,800	24,000	0.99	<u>1,380</u>	6.0
JAN 1992	71,000	24,300	2,000	6,580	900	49,000	1.00	120	6.0
FEB 1992	50,000	19,300	300	3,150	2,600	39,000	0.97	156	6.7
MAR 1992	32,000	17,000	1,200	3,850	670	23,000	0.98	250	6.1
APR 1992	77,900	510	400	7,875	7,190	63,000	0.98	178	6.0
MAY 1992	59,000	<u>*258,000</u>	650	4,375	4,362	41,000	0.99	160	6.0
JUN 1992	34,000	19,300	850	5,250	3,318	22,000	0.98	90	6.3
JUL 1992	32,700	19,900	950	5,250	6,504	21,300	0.97	98	5.9
AUG 1992	67,000	42,000	1,000	7,980	<u>*264,000</u>	54,000	1.00	415	5.4
SEP 1992	81,000	58,200	900	9,660	2,640	47,000	0.99	293	5.9

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)	pH (pH units)
OCT 1992	103,000	47,000	1,400	10,920	6,504	73,000	1.02	208	6.1
NOV 1992	97,000	30,900	1,000	13,300	3,490	65,600	1.00	325	6.2
DEC 1992	63,300	30,200	1,100	12,042	2,808	46,100	1.00	220	6.0
Maximum	103,000	58,200	2,000	13,300	11,300	76,000	1.04	430	6.7
Minimum	11,000	510	120	700	200	7,700	0.95	90	5.4
Number	27	21	28	28	24	27	28	25	28
Mean	63,144	30,572	971	5,525	4,429	45,804	1.00	196	6.1
Std. Dev.	23,438	14,373	396	3,289	2,898	17,408	0.02	92	0.2
Outlier +	133,460	73,691	2,161	15,392	13,123	98,028	1.07	474	6.8
Outlier -	-7,171	-12,547	-218	-4,343	-4,264	-6,421	0.93	-81	5.4
Precooker Water Data With Outliers Removed and Recommended Permit Limits									
Number	27	21	28	28	24	27	28	25	28
Mean	63,144	30,572	971	5,525	4,429	45,804	1.00	196	6.1
Std. Dev.	23,438	14,373	396	3,289	2,898	17,408	0.02	92	0.2
Upper Limit	115,178	64,651	1,851	12,827	11,178	84,450	1.06	408	5.5
Lower Limit							0.95		6.6
Rounded Limit	115,180	64,650	1,850	12,830	11,180	84,450		410	
MPRSA Section 102 Special Permit #OD 90-02 Precooker Water Limits									
Upper Limit	257,290	60,220	2,170	20,820	207,830	358,180	1.04	2,740	5.5
Lower Limit							0.96		7.0
Changes in Precooker Water Limits from OD 90-02 to OD 93-02									
Upper Limit	-142,110	4,430	-320	-7,990	-196,650	-273,730	0.02	-2,330	0
Percent Change	-55	7	-15	-38	-95	-76	1	-85	0
Lower Limit							-0.01		-0.4
Percent Change							-1		-5

* = Violation of MPRSA § 102 Permit #OD 90-02, NA = Not Available, Underlined Value = Outlier not included in limit calculations.

Table 6. VCS Samoa Packing Press Water Data from August 1990 to December 1992 under OD 90-02.

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)	pH (mg/L)
AUG 1990	280,000	230,000	1,000	1,200	150,000	260,000	1.02	<u>2,900</u>	6.9
SEP 1990	193,000	NA	990	10,800	52,000	178,000	1.02	360	6.9
OCT 1990	NA	NA	NA	NA	NA	NA	NA	NA	NA
NOV 1990	216,000	109,000	1,290	9,700	53,000	200,000	1.00	400	6.0
DEC 1990	273,000	NA	1,250	*39,200	107,000	252,000	1.04	510	6.2
JAN 1991	286,000	NA	2,550	21,000	157,020	266,000	1.03	290	5.9
FEB 1991	128,000	172,000	900	4,760	42,130	111,000	1.00	240	6.1
MAR 1991	290,000	102,000	2,850	NA	57,350	270,000	1.04	440	6.2
APR 1991	258,000	NA	1,350	12,600	86,580	229,000	1.02	452	5.8
MAY 1991	105,000	58,000	<u>4,100</u>	NA	22,315	89,000	1.01	875	6.0
JUN 1991	287,000	NA	1,800	23,800	132,010	260,000	1.04	350	5.8
JUL 1991	202,000	118,000	1,400	7,000	32,000	178,000	1.02	320	5.9
AUG 1991	235,000	165,000	1,950	4,200	41,000	214,000	*0.97	300	5.9
SEP 1991	282,000	185,000	1,650	3,920	143,410	262,000	1.06	270	6.0
OCT 1991	165,000	91,000	1,950	3,920	15,100	148,000	1.02	287	6.3
NOV 1991	163,000	NA	2,100	8,960	42,600	147,000	1.02	250	6.5
DEC 1991	41,000	NA	2,200	11,200	8,000	29,000	1.00	<u>3,160</u>	6.0
JAN 1992	269,000	163,000	3,000	23,240	93,000	251,000	1.00	760	6.2
FEB 1992	42,175	86,000	2,100	*35,200	68,000	140,000	1.00	382	6.2
MAR 1992	136,200	222,000	<u>5,700</u>	14,000	120,000	246,000	0.99	510	6.3
APR 1992	76,775	1,980	1,000	21,000	78,710	*448,000	1.00	265	6.1
MAY 1992	22,600	311,000	600	9,800	125,710	*395,000	*0.97	230	6.0
JUN 1992	355,000	300,000	1,000	17,500	54,550	339,000	0.99	503	6.2
JUL 1992	234,000	88,500	1,400	18,200	75,430	199,000	1.00	305	5.9
AUG 1992	166,000	340,000	1,500	14,000	<u>242,000</u>	95,000	0.99	580	5.5
SEP 1992	163,000	125,000	1,300	17,920	68,600	131,000	0.98	510	6.0

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)	pH (mg/L)
OCT 1992	138,000	98,100	1,300	12,600	75,430	106,000	1.00	815	6.2
NOV 1992	229,000	179,000	1,200	17,080	39,640	201,000	0.99	239	6.1
DEC 1992	189,000	77,500	1,500	15,120	32,350	171,000	1.02	550	6.2
Maximum	355,000	340,000	3,000	39,200	157,020	448,000	1.06	875	6.9
Minimum	22,600	1,980	600	1,200	8,000	29,000	0.97	230	5.5
Number	28	21	26	26	27	28	28	26	28
Mean	193,741	153,432	1,582	14,535	73,072	207,679	1.01	423	6.1
Std. Dev.	84,581	85,668	596	8,973	41,795	90,827	0.02	177	0.3
Outlier +	447,484	410,436	3,369	41,455	198,457	480,159	1.07	953	7.0
Outlier -	-60,002	-103,571	-205	-12,384	-52,314	-64,802	0.94	-108	5.3
Press Water Data With Outliers Removed and Recommended Permit Limits									
Number	28	21	26	26	27	28	28	26	28
Mean	193,741	153,432	1,582	14,535	73,072	207,679	1.01	423	6.1
Std. Dev.	84,581	85,668	596	8,973	41,795	90,827	0.02	177	0.3
Upper Limit	381,511	356,551	2,947	35,102	165,857	409,314	1.06	828	5.5
Lower Limit							0.96		6.8
Round Limit	381,510	356,550	2,950	35,100	165,860	409,310		830	
MPRSA Section 102 Special Permit #OD 90-02 Press Water Limits									
Upper Limit	463,780	524,270	6,860	32,020	386,480	384,560	1.07	4,940	5.5
Lower Limit							0.98		7.0
Changes in Press Water Limits from OD 90-02 to OD 93-02									
Upper Limit	-82,270	-167,720	-3,910	3,080	-220,620	24,750	-0.01	-4,110	0
Percent Change	-18	-32	-57	10	-57	6	-1	-83	0
Lower Limit							-0.02		-0.2
Percent Change							-2		-3

* = Violation of MPRSA § 102 Permit #OD 90-02, NA = Not Available, Underlined Value = Outlier not included in limit calculations.

**MARINE PROTECTION, RESEARCH AND SANCTUARIES ACT § 102
OCEAN DUMPING PERMIT**

PERMIT NUMBER AND TYPE: OD 93-02 Special

EFFECTIVE DATE: July 31, 1993

EXPIRATION DATE: July 31, 1996

PERMITTEE: VCS Samoa Packing Company, Inc.
P.O. Box 957
Pago Pago, American Samoa 96799

WASTE GENERATOR: VCS Samoa Packing Company, Inc.
P.O. Box 957
Pago Pago, American Samoa 96799

WASTE GENERATED AT: VCS Samoa Packing Company, Inc.
P.O. Box 957
Pago Pago, American Samoa 96799

PORT OF DEPARTURE: Pago Pago Harbor, American Samoa

WASTE TRANSPORTER: FV TASMAN SEA
Blue North Fisheries, Inc.
1130 N.W. 45th Street
Seattle, Washington 98107-4626

A special ocean dumping permit is being issued to VCS Samoa Packing Company, Inc. because the Regional Administrator of EPA Region IX has determined that disposal of fish processing wastes off American Samoa meets EPA's ocean dumping criteria at 40 C.F.R. Parts 227 and 228. For this permit, the term "fish processing wastes" shall mean either dissolved air flotation (DAF) sludge, precooker water or press water generated at the permittee's plant in Pago Pago, American Samoa.

This special permit authorizes the transportation and dumping into ocean waters of fish processing wastes as described in the special conditions section pursuant to the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 (33 U.S.C. § 1401 *et seq.*) as amended (hereinafter referred to as "the Act"); regulations issued thereunder; and the terms and conditions stated below.

This MPRSA Special Permit does not contain any information collection requirements subject to Office of Management and Budget review under the Paper Work Reduction Act of 1980 (44 U.S.C. § 3501 *et seq.*). This determination has been made because the permit does not require data collection by more than 10 persons.

1. **GENERAL CONDITIONS**

- 1.1. Operation under this special ocean dumping permit shall conform to all applicable federal statutes and regulations including, but not limited to, the Act, the Ocean Dumping Ban Act of 1988 (P.L. 100-688), the Marine Plastic Pollution Research and Control Act of 1987 (P.L. 100-220), the Clean Water Act (33 U.S.C. § 1251 *et seq.*), and the Ports and Waterways Safety Act (33 U.S.C. § 1221 *et seq.*).
- 1.2. All transportation and dumping authorized herein shall be undertaken in a manner consistent with the terms and conditions of this permit. VCS Samoa Packing Company, Inc. (hereafter referred to as "the permittee") shall be liable for compliance with all such terms and conditions. The permittee shall be held liable under § 105 of the Act (33 U.S.C. § 1415) if any permit violations occur. During disposal operations when the permittee's fish processing wastes are combined with similar fish processing wastes from other permittees authorized to use the ocean disposal site defined in Special Condition 2.2, all companies shall be held individually liable under § 105 of the Act (33 U.S.C. § 1415) if a permit violation occurs.
- 1.3. Under § 105 of the Act, any person who violates any provision of the Act, 40 C.F.R. Parts 220 through 228 promulgated thereunder, or any term or condition of this permit shall be liable for a civil penalty of not more than \$50,000 per day for each violation. Additionally, any knowing violation of the Act, 40 C.F.R. Parts 220 through 228, or the permit may result in a criminal action being brought with penalties of not more than \$50,000 or one year in prison, or both. Violations of the Act or the terms and conditions of this permit include but are not limited to:
 - 1.3.1. Transportation to, and dumping at any location other than that defined in Special Condition 2.2 of this permit;
 - 1.3.2. Transportation and dumping of any material not identified in this permit, more frequently than authorized in this permit, or more than the quantities identified in this permit, unless specifically authorized by a written modification hereto;
 - 1.3.3. Failure to conduct permit monitoring as required in Special Conditions 3.1, 3.3.1, 4.7 and 5.1; or
 - 1.3.4. Failure to file fish processing waste stream reports and disposal site monitoring reports as required in Special Conditions 3.3, 4.7, 5.2 and 5.3.
- 1.4. Nothing contained herein shall be deemed to authorize, in any way, the transportation from the United States for the purpose of dumping into the ocean waters, the territorial sea, or the contiguous zone, the following materials:
 - 1.4.1. High-level radioactive wastes;
 - 1.4.2. Materials, in whatever form, produced for radiological, chemical, or biological warfare;

- 1.4.3. Persistent synthetic or natural materials which may float or remain in suspension in the ocean; or
 - 1.4.4. Medical wastes as defined in § 3(k) of the Act.
 - 1.4.5. Flotables, garbage, domestic trash, waste chemicals, solid waste, or any materials prohibited by the Ocean Dumping Ban Act or the Marine Plastic Pollution Research and Control Act.
- 1.5. Nothing contained herein shall be deemed to authorize, in any way, violation of applicable American Samoa Water Quality Standards. The following water quality standards apply:

Table 1. 1989 American Samoa Water Quality Standards: Oceanic Waters [§24.0207(g)(1-7)].

Parameter	Median Not to Exceed the Given Value
Turbidity	0.20 NTU
Total Phosphorus	11.0 µg-P/L
Total Nitrogen	115.0 µg-N/L
Chlorophyll <i>a</i>	0.18 µg/L
Light Penetration Depth	150 feet, to exceed the given value 50% of the time.
Dissolved Oxygen	Not less than 80% of saturation or less than 5.5 mg/L. If the natural level of dissolved oxygen is less than 5.5 mg/L, then the natural dissolved oxygen level shall become the standard.
pH	The pH range shall be 6.5 to 8.6 pH units and within 0.2 pH units of the level which occurs naturally.

- 1.6. After notice and opportunity for a hearing, this permit may be revised, revoked or limited, in whole or in part, subject only to the provisions of 40 C.F.R. §§ 222.3(b) through 222.3(h) and 40 C.F.R. § 223.2, as a result of a determination by the Regional Administrator of EPA that:
- 1.6.1. The cumulative impact of the permittee's dumping activities or the aggregate impact of all dumping activities in the dump site designated in Special Condition 2.2 should be categorized as Impact Category I, as defined in 40 C.F.R. § 228.10(c)(1);

- 1.6.2. There has been a change in circumstances about the management of the disposal site designated in Special Condition 2.2;
- 1.6.3. The dumping authorized by the permit would violate applicable American Samoa Water Quality Standards;
- 1.6.4. The dumping authorized can no longer be carried out consistent with the criteria defined at 40 C.F.R. Parts 227 and 228;
- 1.6.5. The permittee violated any term or condition of the permit;
- 1.6.6. The permittee misrepresented, or did not disclose all relevant facts in the permit application accurately; or
- 1.6.7. The permittee did not keep records, engage in monitoring and reporting activities, or to notify appropriate officials in a timely manner of the transportation and dumping activities as specified in any condition of this permit.
- 1.7. The permittee shall ensure always that facilities, including any vessels associated with the permit, are in good working order to achieve compliance with the terms and conditions of this permit. During all transportation and loading operations, there shall not be a loss of fish processing wastes to any waterway or during transport to the disposal site.
- 1.8. Any change in the designated fish processing waste transporter may be made at the discretion of the Regional Administrator or his delegate. A written request for such a transfer shall be made by the permittee at least thirty (30) days before the requested transfer date. Written approval by the EPA Regional Administrator must be obtained before such a transfer occurs.
- 1.9. The permittee shall allow the EPA Regional Administrator, the Commander of the Fourteenth U.S. Coast Guard District (USCG), the Director of the American Samoa Environmental Protection Agency (ASEPA), and/or their authorized representatives to:
 - 1.9.1. Enter into, upon, or through the permittee's premises, vessels, or other premises or vessels under the control of the permittee, where, or in which, a source of material to be dumped is located or in which any records are required to be kept under the terms and conditions of this permit or the Act;
 - 1.9.2. Have access to and copy any records required to be kept under the terms and conditions of this permit or the Act;
 - 1.9.3. Inspect any dumping equipment, navigational system equipment, monitoring equipment or monitoring methods required in this permit;

- 1.9.4. Sample or require that a sample be drawn, under EPA, USCG, or ASEPA supervision, of any materials discharged or to be discharged; or
- 1.9.5. Inspect laboratory facilities, data, and quality control records required for compliance with any condition of this permit.
- 1.10. Material which is regulated by this permit may be disposed of, due to an emergency, to safeguard life at sea in locations or in a manner that does not comply with the terms of this permit. If this occurs, the permittee shall make a full report, according to the provisions of 18 U.S.C. § 1001, within 15 days to the EPA Regional Administrator, the USCG and the ASEPA describing the conditions of this emergency and the actions taken, including the location, the nature and the amount of material disposed.
- 1.11. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of rights, nor any infringement of Federal, State or local laws or regulations, nor does it obviate the necessity of obtaining State or local assent required by applicable law for the activity authorized.
- 1.12. This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities, or, except as authorized by this permit, the conduct of any work in any navigable waters.
- 1.13. Unless otherwise provided for herein, all terms used in this permit shall have the meanings assigned to them by the Act or 40 C.F.R. Parts 220 through 228, issued thereunder.

2. SPECIAL CONDITIONS - DISPOSAL SITE AND FISH PROCESSING WASTE CHARACTERIZATION

Special conditions are necessary to define the length of the permit period, identify the disposal site location, describe fish processing wastes and define maximum permitted limits for each fish processing waste.

2.1. Location of the Waste Generator and Duration of the Permit

- 2.1.1. The material to be dumped shall consist of fish processing wastes, defined in Special Conditions 2.3 and 2.4, generated at the permittee's fish cannery in Pago Pago, American Samoa.
- 2.1.2. This permit shall become effective on July 31, 1993 and it shall expire three years from the effective date at midnight on July 31, 1996.

2.2. Location of Disposal Site

Disposal of fish processing wastes generated at the location defined in Special Condition 2.1.1 shall be confined to a circular area with a 1.5 nautical mile radius, centered at 14° 24.00' South latitude by 170° 38.30' West longitude.

2.3. Description of Fish Processing Wastes

2.3.1. During the term of this permit, and according to all other terms and conditions of this permit, the permittee is authorized to transport for disposal into ocean waters quantities of fish processing wastes that shall not exceed the following amounts:

Table 2. Volumes of Fish Processing Wastes Authorized for Disposal.

Fish Processing Waste	Maximum Volume Authorized for Disposal (gallons/day)
Dissolved Air Flotation (DAF) Sludge	60,000
Precooker Water	100,000
Press Water	40,000
Maximum Daily Volume	200,000

2.4. Fish Processing Waste Limits

Table 3. Limits for DAF Sludge, Precooker Water and Press Water.

Physical or Chemical Parameter (units) ^a	DAF Sludge	Precooker Water	Press Water
Total Solids (mg/L)	461,790	115,180	381,510
Total Volatile Solids (mg/L)	455,560	84,450	409,310
5-Day BOD (mg/L)	349,350	64,650	365,550
Oil and Grease (mg/L)	395,700	11,180	165,860
Total Phosphorus (mg/L)	3,790	1,850	2,950
Total Nitrogen (mg/L)	21,820	12,830	35,100
Ammonia (mg/L)	3,470	410	830
pH (pH units)	4.8 to 7.0	5.5 to 6.6	5.5 to 6.8
Density (g/mL)	0.86 to 1.05	0.95 to 1.06	0.96 to 1.06

a = All calculated values were rounded to the nearest 10, except the density and pH ranges.

- 2.4.2. Permitted Maximum Concentrations for each type of fish processing waste were calculated based on an analysis of historical data from the permittee's previous Special Ocean Dumping Permit, number OD 90-02. The calculations followed EPA's recommended procedure for determining permit limits as defined in the EPA document titled: "Guidance Document for Ocean Dumping Permit Writers" (January 30, 1988). EPA will periodically review these limits during the permit to evaluate the accuracy of the limits. If revisions are necessary, EPA will make changes according to the authority defined in the Ocean Dumping Regulations at 40 C.F.R §§ 223.2 through 223.5.
- 2.4.3. The Permitted Maximum Concentrations, density range and pH range listed above, shall not be exceeded at any time during the term of this permit.

3. SPECIAL CONDITIONS - ANALYSIS OF FISH PROCESSING WASTES

Compliance with the permitted maximum concentrations defined in Special Condition 2.4 shall be determined by monthly monitoring of **each of the fish processing waste stream** permitted for ocean disposal. Additional analyses of fish processing wastes and reporting requirements are defined in this section. Any sampling dates shall be scheduled within the first two weeks of the month to allow enough time for laboratory analyses and report writing to comply with Special Condition 3.3.

3.1. Analyses of Fish Processing Wastes

- 3.1.1. Concentrations or values of the parameters listed in Special Condition 2.4 and those listed in the table below shall be determined for each fish processing waste stream. A sample of each fish processing waste stream shall be taken before the individual streams are mixed before being pumped into the disposal vessel. A sample shall consist of three replicate samples, taken on the day that sampling is scheduled, pooled for use as a composite sample. The detection limits specified in Table 4 shall be used in all fish processing waste stream analyses.

Table 4. Physical and Chemical Parameters to be Analyzed from Individual Samples of DAF Sludge, Precooker Water and Press Water.

Parameter	Method Detection Limit
Total Solids	10.0 mg/L
Total Volatile Solids	10.0 mg/L
5-Day BOD	10.0 mg/L

Parameter	Method Detection Limit
Oil and Grease	10.0 mg/L
Total Phosphorus	1.0 mg/L
Total Nitrogen	1.0 mg/L
Ammonia	1.0 mg/L
pH	0.1 pH units
Density	0.01 g/mL

3.1.2. All sampling procedures, analytical protocols, and quality control/quality assurance procedures shall be performed according to guidelines specified by EPA Region IX. The following references shall be used by the permittee:

3.1.2.1. 40 C.F.R. Part 136, EPA Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act;

3.1.2.2. Tetra Tech, Incorporated. 1985. Summary of U.S. EPA-approved Methods, Standard Methods and Other Guidance for 301(h) Monitoring Variables. Final program document prepared for the Marine Operations Division, Office of Marine and Estuarine Protection, U.S. Environmental Protection Agency. EPA Contract No. 68-02-693. Tetra Tech, Incorporated, Bellevue, Wa.; and

3.1.2.3. Environmental Protection Agency. 1987. Quality Assurance and Quality Control for 301(h) Monitoring Programs: Guidance on Field and Laboratory Methods. Office of Marine and Estuarine Protection, Washington, D.C. EPA 430/9-86-004.

3.1.3. Any parameters listed in Special Condition 3.1.1 that are shown to be consistently undetected, may be eliminated from further analytical tests. Before elimination of the parameter is permitted, the permittee shall obtain written approval from EPA Region IX and the ASEPA.

3.2. Analytical Laboratory

3.2.1. Within 30 days of the effective date of this permit, the name and address of the contract laboratory or laboratories and a description of all analytical test procedures and quality assurance/quality control procedures, including detection limits being used, shall be provided for EPA Region IX approval.

- 3.2.2. Any potential variation or change in the designated laboratory or analytical procedures shall be reported, in writing, for EPA Region IX approval.
- 3.2.3. EPA Region IX may require analyses of quality control samples by any laboratories employed to comply with Special Condition 3.1 and Appendix A. Upon request, the permittee shall provide EPA Region IX with the analytical results from such samples.
- 3.2.4. A complete analysis of parameters, required in Special Condition 3.1, shall be made by the permittee and reported to EPA Region IX and the ASEPA whenever there is a change in the quality of the fish processing waste, process configuration, or fish processing waste treatment. If required by EPA Region IX, bioassays shall be required in addition to parameter analyses.

3.3. Reporting

- 3.3.1. The permittee shall provide EPA Region IX, ASEPA, the National Marine Fisheries Service (NMFS), the U.S. Fish and Wildlife Service (USFWS) and the Western Pacific Regional Fishery Management Council (WPRFMC) with a report, prepared every 6 months during the permit period, that contains the following information:
 - 3.3.1.1. Daily volumes of DAF sludge, Precooker Water and Press Water removed from the permittee's facility, and loaded into the disposal vessel reported in gallons per day using Form 1 (see Appendix B);
 - 3.3.1.2. Monthly fish processing waste stream analyses demonstrating that the fish processing wastes being dumped comply with the permitted limits of parameters listed in Special Condition 2.4 and a summary of the volumes of fish processing wastes disposed at the ocean site using Form 2 (see Appendix B);
 - 3.3.1.3. The monthly amount of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams reported in pounds per month (see Forms 1 and 2).
- 3.3.2. Such reports, including a comparison with the permit limits as required on Forms 1 and 2, shall be submitted to EPA Region IX, ASEPA, NMFS USFWS and WPRFMC within 45 days of the end of the preceding 6-month period for which they were prepared. The reports shall be submitted within this time unless extenuating circumstances are communicated to EPA Region IX and the ASEPA in writing. In addition to a hard copy of Forms 1 and 2, the data contained on Form 1 shall be submitted to EPA Region IX on a 3.5" computer diskette in a format compatible with LOTUS version 2.2.

- 3.3.3. A summary report of all 6-month reports listed in Special Condition 3.3.1, including a comparisons with permit limits and a detailed discussion of the summary results, shall be submitted by the permittee to EPA and the ASEPA 45 days after the permit expires. All fish processing waste stream data shall be reported in the same format as required in Special Condition 3.3.2.
- 3.3.4. Upon detection of a violation of any permit condition, the permittee shall send a written notification of this violation to EPA Region IX and the ASEPA within five working days and a detailed written report of the violation shall be sent to the agencies within 15 working days. This notification shall pertain to any permit limits (defined in Special Condition 2.4) that are exceeded, violation of volume limits (defined in Table 2 under Special Condition 2.3.1), and any disposal operation that occurs outside the disposal site defined in Special Condition 2.2.
- 3.3.5. One year from the effective date of this special permit, the permittee shall submit a report to EPA and ASEPA on the results of suspended phase bioassay tests and reevaluation of the model used to predict the concentrations of fish processing wastes disposed at the designated site. The suspended phase bioassays shall be conducted using at least one species from each of the following three groups: Group 1 = *Mytilus* sp. (mussel), *Crassostrea* sp. (oyster), *Acartia tonsa* (copepod), or *Trypneustes* sp. (sea urchin) larvae; Group 2 = *Holmsemysis costata* (mysid shrimp) or *Penaeus vannamei* (white shrimp); and Group 3 = *Citharichthys stigmaeus* (speckled sanddab) or *Coryphaena hippurus* (dolphinfish) juveniles.

Appropriate suspended phase bioassay protocols, either protocols approved by EPA or protocols published by the American Society for Testing and Materials (ASTM), shall be followed. Suspended particulate phase bioassays shall be run using the following fish processing waste concentrations: 100%, 75%, 50%, 25%, 12.5% and a control (0%). A minimum of five replicates are required per dilution concentration. Concurrent reference toxicant tests shall be conducted when the suspended phase bioassays are run.

A sampling and testing plan shall be submitted to EPA Region IX and ASEPA for approval before the bioassay tests are conducted. The testing plan should also include a proposal to reevaluate the disposal site model using results obtained from the new series of suspended phase bioassays. These bioassays are being required to confirm the toxicity of the fish processing wastes and to reevaluate the disposal operations based on the use of different disposal vessels.

The bioassay and model confirmation report shall contain the following information:

3.3.5.1. INTRODUCTION AND PROJECT DESCRIPTION

The project description should include the following information about fish processing waste toxicity, previous bioassay test results, previous modelling at the ocean disposal site, and the design of the new bioassay tests.

3.3.5.2. MATERIALS AND METHODS

Fish processing waste sampling and sample handling procedures should be described or referenced.

References for laboratory protocols for suspended phase bioassay tests.

- 1) EPA-approved methods and references.
- 2) Test species used in each test, the supplier or collection site for each test species, and QA/QC procedures for maintaining the test species.
- 3) Source of seawater used in reference, control and bioassay tests.
- 4) Data and statistical analysis procedures.
- 5) Limiting Permissible Concentration (LPC) calculations.
- 6) Description of model selected to evaluate dispersal of fish processing wastes at the ocean disposal site. Use of this model shall be approved by EPA Region IX and ASEPA before it is used by the permittee to evaluate the fish processing waste disposal plume.

3.3.5.3. DESCRIPTION OF SAMPLING PROCEDURES

QA/QC procedures and actual sampling procedures used during fish processing waste stream sampling and handling of the samples.

3.3.5.4. FINAL RESULTS, ANALYSIS OF DATA AND DISCUSSION

- 1) Complete bioassay data tables and summary bioassay tables shall be furnished in the report. All data tables should be typed or produced as a computer printout.
- 2) The permittee shall analyze the bioassay data and calculate the LPC of the material as defined at 40 C.F.R. § 227.27(a-b).
- 3) The permittee shall use the LPC in the approved plume model to determine the concentration of fish processing wastes disposed at the

designated ocean disposal site which complies with EPA's Ocean Dumping Criteria defined at 40 C.F.R. Parts 227 and 228.

3.3.5.5. REFERENCES

This list should include all references used in the field sampling program, laboratory protocols, LPC calculations, modelling analyses, and historical data used to evaluate the fish processing waste disposal operations at the designated ocean disposal site.

3.3.5.6. DETAILED QA/QC PLANS AND INFORMATION

The following topics should be addressed in the QA Plan:

- 1) QA objectives.
- 2) Organization, responsibilities and personnel qualifications, internal quality control checks.
- 3) Sampling and analytical procedures.
- 4) Equipment calibration and maintenance.
- 5) Sample custody and tracking.
- 6) documentation, data reduction, and reporting.
- 7) Data validation.
- 8) Performance and systems audits.
- 9) Corrective action.
- 10) Reports.

4. SPECIAL CONDITIONS - VESSEL OPERATIONS

Specifications for vessel operations are defined to limit dumping activities to the dump site identified in Special Condition 2.2 and to record all dumping activities. Fish processing wastes from the permittee's waste streams and fish processing wastes of other authorized permittees may be loaded into the disposal vessel together. If the waste transported to the disposal site is a combination of materials from the two plants, each permittee shall be liable for all permit conditions regarding disposal of the fish processing wastes. If the fish processing wastes disposed at the site are only generated at the VCS Samoa Packing plant, then VCS Samoa Packing shall be solely liable for all permit conditions pertaining to the disposal operation.

4.1. Posting of the Permit

This permit, or a true copy thereof, shall be placed in a conspicuous place on any vessel which is used for the transportation and dumping authorized by this permit. If the dumping vessel is an unmanned barge, the permit or true copy of the permit shall be transferred to the towing vessel.

4.2. Vessel Identification

Every vessel engaged in the transportation of wastes for ocean disposal shall have its name and number painted in letters and numbers at least fourteen (14) inches high on both sides of the vessel. The name and number shall be kept distinctly legible always, and a vessel without such markings shall not be used to transport or dump waste material.

4.3. Determination of the Disposal Location Within the Dump Site

On each disposal trip, the master of the disposal vessel shall determine the location of the disposal operation as follows:

- 4.3.1. The disposal vessel, as defined under WASTE TRANSPORTER on page 1 of this permit, shall proceed directly to the center of the disposal site at the location specified in Special Condition 2.2.
- 4.3.2. The master of the vessel shall observe the conditions at the dump site center, noting the vessel's position (latitude and longitude), wind direction and observed surface current direction.
- 4.3.3. After the conditions defined in Special Condition 4.3.2 have been recorded, the master of the disposal vessel shall proceed 1.1 nautical miles up current from the center of the disposal site and record the position of the disposal vessel (latitude and longitude). This position shall be the starting point for disposal operations for each disposal trip.
- 4.3.4. The master of the disposal vessel shall prepare a computerized navigational plot of the procedures defined in Special Conditions 4.3.1 to 4.3.4 and supply these to the permittee. The permittee shall submit these computerized navigational plots with the 6-month reports required under Special Condition 3.3.1. The navigational plot shall include:
 - 4.3.4.1. The disposal vessel's course during the entire dumping operation; and
 - 4.3.4.2. The times and location of entry and exit from the disposal site, position and time of arrival at the center of the disposal site, position and time of arrival at the location 1.1 nautical miles up current from the disposal site, beginning and ending of dumping

operations, and disposal vessel position plotted every 15 minutes while dumping.

- 4.3.5. The master of the disposal vessel shall sign and date each computerized navigational plot.
- 4.3.6. The master of the disposal vessel shall certify that disposal occurred in the manner required by the permit.
- 4.3.7. The procedures listed in Special Conditions 4.3.1 through 4.3.6 shall be repeated for each disposal trip.

4.4. Disposal Rate and Vessel Speed

- 4.4.1. The disposal vessel/barge shall discharge the material authorized by this permit beginning at the disposal location as determined by Special Condition 4.3.3. The vessel track shall be in a direction that is perpendicular to the current detected at the center of the disposal site as defined in Special Condition 2.2. Disposal shall occur in an oval shape along an axis at least 0.5 nautical miles on either side of the starting point determined in Special Condition 4.3.3. The entire disposal vessel track shall be within the disposal site boundaries.

- 4.4.1.1. From June 1 through November 30, the disposal operation at the location plotted in Special Condition 4.3.3. shall be conducted at a rate of 140 gallons per minute per knot, not to exceed 1,400 gallons per minute at a maximum speed of 10 knots.

- 4.4.1.2. From December 1 through May 31, the disposal operation at the location plotted in Special Condition 4.3.3. shall be conducted at a rate of 120 gallons per minute per knot, not to exceed 1,200 gallons per minute at a maximum speed of 10 knots.

4.5. Computerized Navigational System

The permittee shall use an onboard computerized electronic positioning system to fix the position of the disposal vessel accurately during all dumping operations. The computerized navigational system must be approved by EPA Region IX and the USCG Liaison Office (CGLO) Pago Pago. The permittee shall submit the description, specifications and example plots for the computerized navigational system at least 15 working days before the effective date of the permit. Disposal operations shall not begin until EPA Region IX and CGLO Pago Pago provide the permittee with written approval for the computerized navigation system.

4.6. Permitted Times for Disposal Operations

Dumping operations shall be restricted to daylight hours, unless an emergency exists as defined at 40 C.F.R. § 220.1(c)(4). ASEPA and CGLO Pago Pago shall be notified

immediately if an emergency exists and ocean disposal is required to protect human life at sea. No later than 5 working days after the emergency, the permittee and the waste transporter shall provide EPA Region IX, ASEPA and CGLO Pago Pago with a detailed written report on the emergency situation.

4.7. Reporting of the Ocean Dumping Vessel Operations

4.7.1. The waste transporter shall maintain and the permittee shall submit copies of a daily transportation and dumping log, including plots of all information requested in Special Conditions 4.3 and 4.7.2. Copies of the daily logs shall be sent to EPA Region IX, CGLO Pago Pago, and the ASEPA as part of the 6-month report.

4.7.2. The logbook shall contain the following information for each waste disposal trip:

- 4.7.2.1. Permit number, date and consecutive trip number;
- 4.7.2.2. Record of contact with ASEPA and CGLO before each trip to the ocean disposal site.
- 4.7.2.3. The time when loading of the vessel commences and ceases in Pago Pago Harbor;
- 4.7.2.4. The volume of each waste loaded into the disposal vessel from each fish cannery;
- 4.7.2.5. The time and navigational position that dumping commences and ceases;
- 4.7.2.6. A record of vessel speed and direction every 15 minutes during each dumping operation at the disposal site, and a computerized plot of the vessel's course defined in Special Condition 4.3;
- 4.7.2.7. Discharge rate from the disposal vessel.
- 4.7.2.8. Observe, note and plot the time and position of any floatable material;
- 4.7.2.9. Observe, note and plot the wind speed and direction every 30 minutes while dumping wastes at the designated disposal site;
- 4.7.2.10. Observe and note current direction at the beginning and end of the disposal trip, and the direction of the waste plume at the end of the disposal operation;

- 4.7.2.11. Observe, note and plot the presence of the previous disposal plume and any unusual occurrences during the disposal trip, or any other information relevant to the assessment of environmental impacts as a result of dumping activities; and
- 4.7.2.12. Any unusual occurrences noted under Special Condition 4.7.2.9 shall be highlighted in the report defined in Special Condition 3.3.1.

5. SPECIAL CONDITIONS - DUMP SITE MONITORING

The monitoring program for disposal of wastes in the ocean must document effects of disposed wastes on the receiving waters, biota, and beneficial uses of the receiving waters; compliance with EPA's Ocean Dumping Regulations; and determine compliance with permit terms and conditions. Revisions to the monitoring program may be made under the direction of EPA Region IX at any time during the permit term, in compliance with 40 C.F.R. §§ 223.2 and 223.3. This may include a change in the number of parameters to be monitored, the frequency of monitoring, the location of sample stations, or the number and size of samples to be collected.

Implementation of the disposal site monitoring program and all segments of the monitoring program specified in Special Condition 5 and Appendix A shall be the responsibility of the permittee.

5.1. Monitoring Program

The permittee shall conduct the monitoring program, defined in Appendix A, to determine the environmental impacts of ocean dumping of fish processing waste. If possible, monitoring cruises shall be scheduled within the first two weeks of each month to allow enough time for laboratory analysis and report writing in compliance with Special Condition 5.2. The permittee shall notify the ASEPA at least 48 hours before any scheduled monitoring activities.

5.2. Monitoring Reports

Monthly site monitoring reports shall be submitted to EPA Region IX, the ASEPA, NMFS, USFWS and WPRFMC with the 6-month reports as specified in Special Condition 3.3.2. The reports shall include: neatly compiled raw data for all sample analyses, quality assurance/quality control data, statistical analysis of sample variability between stations and within samples for each parameter, and a detailed discussion of the results.

5.3. Final Summary Report

- 5.3.1. A report shall be submitted to EPA Region IX, ASEPA, NMFS, USFWS and WPRFMC 60 days after the permit expires. This report shall summarize all of

the data collected during the waste material and dump site monitoring programs specified in this special permit.

5.3.2. At a minimum, the summary report shall contain the following sections:

- 5.3.2.1. Introduction (including a summary of previous ocean disposal activities),
- 5.3.2.2. Location of Sampling Sites,
- 5.3.2.3. Materials and Methods,
- 5.3.2.4. Results and Discussion (including comparisons and contrasts with previous MPRSA § 102 research and special permit data related to disposal of fish processing wastes off American Samoa),
- 5.3.2.5. Conclusions; and
- 5.3.2.6. References.

5.4. Quality Assurance/Quality Control

- 5.4.1. All appropriate phases of the monitoring, sampling, and laboratory analytical procedures shall comply with the EPA Region IX-specified protocols and references listed in Special Condition 3.1.2.
- 5.4.2. The qualifications of the on-site Principal Investigator in charge of the field monitoring operation at the dump site shall be submitted to EPA Region IX and the ASEPA for approval before the initial monitoring cruise. Notification of any change in this individual shall be submitted to EPA Region IX and ASEPA at least 7 days before the cruise is scheduled.

6. SPECIAL CONDITIONS - NOTICE TO REGULATORY AGENCIES

6.1. Notice of Sailing to the U.S. Coast Guard Liaison Office and the American Samoa Environmental Protection Agency

- 6.1.1. The waste transporter shall provide telephone notification of sailing to CGLO Pago Pago at 633-2299 and the ASEPA at 633-2304 during working hours (7:00 a.m. to 3:30 p.m.) no later than 24 hours before the estimated time of departure for the dump site defined in Special Condition 2.2. A record of contact with both agencies shall be reported with other information for each disposal trip.

- 6.1.2. The waste transporter shall immediately notify CGLO Pago Pago and the ASEPA upon any changes in the estimated time of departure greater than two hours.
- 6.1.3. Surveillance of activities at the dump site designated in Special Condition 2.2, may be accomplished by unannounced aerial overflights, a USCG shiprider and/or a ASEPA shiprider who will be on board the towing/conveyance vessel for the entire voyage. Within two hours after receipt of the initial notification the waste transporter will be advised whether or not a shiprider will be assigned to the waste transporter's disposal vessel.
- 6.1.4. The following information shall be provided to CGLO Pago Pago and the ASEPA in the notification of sailing defined above:
 - 6.1.4.1. The time of departure,
 - 6.1.4.2. Estimated time of arrival at the dump site,
 - 6.1.4.3. Estimated time of departure from the dump site, and
 - 6.1.4.4. Estimated time of return to port.

6.2. Reports and Correspondence

- 6.2.1. Two copies of all reports and related correspondence required by General Condition 1.10, Special Conditions 3.2, 3.3, 4.3, 4.5, 4.6, 4.7, 5.2, 5.3, 5.4, 6.1, and all other materials, including applications shall be submitted to EPA Region IX at the following address:

Office of Pacific Island and Native American Programs (E-4)
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, California 94105-3901
Telephone (415) 744-1974

- 6.2.2. Two copies of all reports required by General Condition 1.10 and Special Conditions 4.5, 4.6, 4.7 and 6.1 sent to the U.S. Coast Guard shall be submitted to the following address:

Commanding Officer
U.S. Coast Guard Liaison Office
P.O. Box 249
Pago Pago, American Samoa 96799
Telephone (684) 633-2299

- 6.2.3. Three copies of all reports required by General Condition 1.10 and Special Conditions 3.2, 3.3, 4.3, 4.5, 4.6, 4.7, 5.2, 5.3, 5.4 and 6.1 sent to the American

Samoa Environmental Protection Agency shall be submitted to the following address:

Director
American Samoa Environmental Protection Agency
Office of the Governor
Pago Pago, American Samoa 96799
Telephone (684) 633-2304

- 6.2.4. One copy of the all reports required by Special Conditions 3.3, 5.2 and 5.3 shall be sent to the USFWS, the NMFS and the WPRFMC at the following addresses:

Project Leader
Office of Environmental Services
U.S. Fish and Wildlife Service
300 Ala Moana Boulevard
P.O. Box 50167
Honolulu, Hawaii 96850

Western Pacific Program Officer
National Marine Fisheries Service
2570 Dole Street
Honolulu, Hawaii 96822-2396

Executive Director
Western Pacific Regional Fishery Management Council
1164 Bishop Street, Suite 1405
Honolulu, Hawaii 96813

Signed this _____ day of _____, 1993

For the Regional Administrator:

[To be signed when the Final Permit is prepared]

Harry Seraydarian, Director
Water Management Division
U.S. EPA, Region IX

APPENDIX A

SPECIAL OCEAN DUMPING PERMIT OD 93-02 OCEAN DUMP SITE MONITORING PLAN

7. MONITORING OF RECEIVING WATER

Monitoring of the receiving waters at the disposal site defined in Special Condition 2.2 shall be the responsibility of the permittee. Funding and cooperation for site monitoring may be accomplished through an agreement between permittee and other permittees authorized to use the disposal site. Any agreements negotiated between the permittee and other authorized permittees shall be the sole responsibility of the permittee named in this permit. EPA Region IX requires that a monitoring program be developed that complies with the special conditions defined below.

During each monitoring cruise, the fish processing waste plume from the disposal vessel shall be sampled by taking discrete water samples for the measurement of parameters listed in Special Condition 7.2.4. Results of the first 6-month monitoring report will be evaluated by EPA Region IX to determine whether portions of Special Conditions 7 and/or 8 will be revised. The evaluation will be based on documented sampling results and recommendations by the permittee(s).

7.1. Location of Water Sampling Stations

7.1.1. On each sampling cruise, the latitude and longitude of all sampling stations shall be determined and plotted using an acceptable navigational system.

7.1.2. The Principal Investigator shall ensure that discrete water samples are taken at the locations marked in Figure 1.

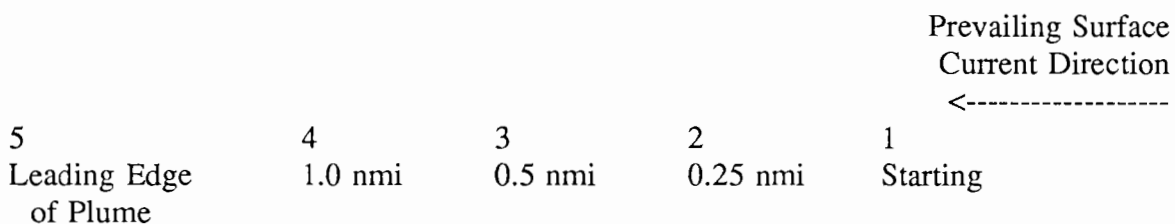


Figure 1. Orientation of Sample Stations (Top View) in the Middle of the Discharge Plume Visually Identified at the Time of Sampling.

7.1.3. The following stations, defined in Figure 1, shall be sampled on each sampling cruise:

7.1.4.1. Station 1 shall be the starting point of the dumping operation as determined in Special Condition 4.3.

- 7.1.4.2. Station 2 shall be 0.25 nautical miles (nmi) down-current from Station 1.
- 7.1.4.3. Station 3 shall be 0.5 nmi down-current from Station 1.
- 7.1.4.4. Station 4 shall be 1.0 nmi down-current from Station 1.
- 7.1.4.5. Station 5 shall be at the leading edge of the discharge plume, but within the plume.
- 7.1.4. The Principal Investigator shall ensure that each sampling station is positioned as close as possible to the middle of the discharge plume according to his/her best professional judgment.

7.2. Water Column Characteristics to Be Measured

- 7.2.1. Discrete water samples at Stations 1, 2, 3, 4, and 5 shall be taken at depths of 1, 3, and 10 meters from the surface at the middle of the plume visually identified by the Principal Investigator.
- 7.2.2. Surface water conditions shall be recorded at all stations including:
 - 7.2.2.1. Wind speed and direction;
 - 7.2.2.2. Current direction and wave height; and
 - 7.2.2.3. Observations of waste, color (e.g., Forel-Ule color scale), odor, floating materials, grease, oil, scum, and foam.
- 7.2.3. Water samples shall be obtained using a self-closing 3-liter water sample device at each depth listed in 7.2.1.
- 7.2.4. Water column parameters analyzed from discrete samples taken at the depths listed in 7.2.1 shall include:

Table 4. Physical and Chemical Parameters to be Analyzed from Water Samples Taken at the Ocean Disposal Site.

Parameter ^a	Method Detection Limit
Total Suspended Solids	10.0 mg/L
Total Volatile Suspended Solids	10.0 mg/L
Oil and Grease	10.0 mg/L

Parameter ^a	Method Detection Limit
Total Phosphorus	1.0 mg/L
Total Nitrogen	1.0 mg/L
Ammonia	1.0 mg/L
pH	0.1 pH units

a = Samples should be acidified to pH <2 with sulfuric acid and refrigerated at 4°C until analysis.

- 7.2.5. Temperature measurements shall be taken at depths of 1, 3, and 10 meters at the starting point of the disposal operation, as defined in Special Condition 4.3.3.

7.3. Frequency of Sampling

- 7.3.1. Water samples shall be collected when dumping operations occur. Each station listed under Special Condition 7.1 shall be sampled once each month. These samples shall be used to characterize the receiving waters at the disposal site.
- 7.3.2. Control samples shall be taken at Station 1 before dumping activities.
- 7.3.3. Station 1 shall be sampled at a point within the plume immediately after discharge operations cease.
- 7.3.4. Stations 2 through 5 shall be sampled consecutively at distances indicated in Special Condition 7.1.4 to allow efficient sampling of the discharge plume. The time between each sample and the sampling location, beginning with the control sample and ending with the sample collected at the leading edge of the plume, shall be recorded.

7.4. Water Quality Criteria and Standards

- 7.4.1. The LPC of the liquid phase of the waste material shall not be exceeded at the disposal site boundary four hours after disposal operations cease. The LPC is that concentration of the material which, after allowance for initial mixing as defined at 40 C.F.R. § 227.29, does not exceed applicable American Samoa Oceanic Water Quality Standards (see Table 1). EPA Region IX and the ASEPA will evaluate the LPC based on EPA's Ocean Dumping Regulations and the concentration of parameters measured at the stations sampled during the tenure of this permit.

8. MONITORING OF BIOLOGICAL COMMUNITIES

8.1. Pelagic Resources

8.1.1. All sightings of fish, sea turtles, sea birds, or cetaceans near the disposal site shall be recorded including:

- 8.1.1.1. Time, location and bearing;
- 8.1.1.2. Species name(s); and
- 8.1.1.3. Approximate number of individuals.

APPENDIX B - REPORT FORM 1

Monthly Volumes of VCS Samoa Packing Fish Processing Wastes Loaded Aboard the Disposal Vessel

Month _____ 19____

OD 93-02	DAF Sludge (gallons/day)	Precooker Water (gallons/day)	Press Water (gallons/day)	Total/Day (gallons/day)
Permit Limits	60,000	100,000	40,000	200,000

[illegible]

Disposal Trip Date	DAF Sludge (gallons/day)		Precooker Water (gallons/day)		Press Water (gallons/day)		Total/Day (gallons/day)	
Monthly Totals								

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred. The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum sulfate: _____ pounds/month

Coagulant polymer: _____ pounds/month

APPENDIX B - REPORT FORM 2

Data Form for 6-Month Report on Waste Stream Analyses for VCS Samoa Packing MPRSA § 102 Permit #OD 93-02

Reporting Period: From _____ 19__ To _____ 19__

VCS Samoa Packing - Dissolved Air Flotation (DAF) Sludge

Month & Year	Total Solids (mg/L)		Total Volatile Solids (mg/L)		5-Day Biological Oxygen Demand (mg/L)		Oil and Grease (mg/L)		Total Phosphorus (mg/L)		Total Nitrogen (mg/L)		Ammonia (mg/L)		pH (pH units)		Density (g/mL)	
OD 93-02 Permit Limits	461,790		455,560		349,350		395,700		3,790		21,820		3,470		4.8 to 7.0		0.86 to 1.05	

NOTE: An asterisk (*) next to the waste concentration signifies that a violation of the permit limit has occurred.

VCS Samoa Packing - Precooker Water

Month & Year	Total Solids (mg/L)		Total Volatile Solids (mg/L)		5-Day Biological Oxygen Demand (mg/L)		Oil and Grease (mg/L)		Total Phosphorus (mg/L)		Total Nitrogen (mg/L)		Ammonia (mg/L)		pH (pH units)		Density (g/mL)	
OD 93-02 Permit Limits	115,180		84,450		64,650		11,180		1,850		12,830		410		5.5 to 6.6		0.95 to 1.06	

NOTE: An asterisk (*) next to the waste concentration signifies that a violation of the permit limit has occurred.

Data Form for 6-Month Report on Waste Stream Analyses for VCS Samoa Packing MPRSA § 102 Permit #OD 93-02

Reporting Period: From _____ 19__ To _____ 19__

VCS Samoa Packing - Press Water

Month & Year	Total Solids (mg/L)		Total Volatile Solids (mg/L)		5-Day Biological Oxygen Demand (mg/L)		Oil and Grease (mg/L)		Total Phosphorus (mg/L)		Total Nitrogen (mg/L)		Ammonia (mg/L)		pH (pH units)		Density (g/mL)	
OD 93-02 Permit Limits	381,510		409,310		365,550		165,860		2,950		35,100		830		5.5 to 6.8		0.96 to 1.06	

NOTE: An asterisk (*) next to the waste concentration signifies that a violation of the permit limit has occurred.

VCS Samoa Packing - Summary of Monthly Volumes of Fish Processing Waste Disposed at the Ocean Site and the Amount of Aluminum Sulfate and Coagulant Polymer Added to the Waste Streams.

Month & Year	DAF Sludge (gallons/month)	Precooker Water (gallons/month)	Press Water (gallons/month)	Total Fish Processing Waste (gallons/month)	Aluminum sulfate (pounds/month)	Coagulant polymer (pounds/month)
6-Month Totals						



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

August 3, 1993

James L. Cox
Director of Engineering
and Environmental Affairs
Van Camp Seafood Company, Inc.
4510 Executive Drive, Suite 300
San Diego, CA 92121-3029

Re: Need for Consistency Determination by American Samoa Coastal
Management Program for Ocean Disposal Permit Issuance

Dear Jim:

Prior to U.S. EPA's issuance of a new ocean disposal permit for VCS Samoa Packing Company, our agency must receive a determination from the American Samoa Coastal Management Program (ASCMP) that the proposed permitted activity is consistent with the Coastal Zone Management Act. Therefore, you should request the ASCMP that such a review and determination be undertaken for Samoa Packing's new permit.

A similar request was made by CH2MHill on the canneries' behalf for their NPDES permit. A copy of this request is attached for your information. I suggest you address your request to Larry Ward, who will be Acting Director of the ASCMP while Lelei Peau is off-island during the next two weeks. I spoke to Lelei today to alert him that this request is forthcoming and emphasized to him the need for a timely response.

Should you have any questions regarding this matter, please contact me at (415) 744-1594, or Pat Cotter at (415) 744-1163.

Sincerely,

Pat Young
Pat Young
American Samoa Program Manager
Office of Pacific Island and
Native American Programs (E-4)

Enclosure

cc: Sheila Wiegman, ASEPA



Engineers
Planners
Economists
Scientists

July 15, 1991

PDX30702.PA.PR

American Samoa Coastal Management Program
Economic Development Planning Office
American Samoa Government
Pago Pago, American Samoa 96799



Attention: Lydia Faleafine, Director

Subject: Joint Cannery Permitting Section 307 Consistency

Dear Ms Faleafine,

Under Section 307 of the Coastal Zone Management Act (CZMA), non-Federal activities that are conducted under Federal licenses or permits are subject to review by the American Samoa Government to insure consistency with the CZMA. StarKist Samoa and Samoa Packing propose to construct a joint outfall discharging approximately 7000 feet seaward of the present individual outfalls. A summary project description is enclosed with this letter.

This letter is submitted to the American Samoa Coastal Management Program on behalf of StarKist Samoa, Inc. and Samoa Packing Company, Inc. This letter is a request for certification that the proposed activity complies with the ASCMP and will be conducted in a manner consistent with such program. A set of findings documenting that the proposed activity is consistent with the ASCMP is attached to this letter as Table 1. Outfall construction impacts will be minor and temporary. The long term impact of the joint outfall project will be beneficial and provide an improvement in water quality throughout Pago Pago Harbor. An environmental impact assessment is being prepared for this project.

The tuna canneries understand that the Development Planning Office (DPO) will circulate this consistency certification among Territorial and local government agencies that may be affected by the proposed activity. A timely response to the request for certification of compliance would be appreciated since the applicants are operating under a deadline.

Thank you for your assistance in this matter. If you have any questions concerning the proposed outfall, please contact Steve Costa, who is managing the joint cannery outfall permitting activities, at (415) 652-2426.

Sincerely,

CH2M HILL

Beth Hussey, Environmental Sciences Department

Enclosures (1)

cc: Lelei Peau/ASCMP

Norman Wei/StarKist Seafood Company

James Cox/Samoa Packing Company

Andrew Resnick/Makai Ocean Engineering

Table 1. Summary of Joint Cannery Outfall Project Compliance with the American Samoa Coastal Management Program (ASCMP) Objectives. NA = Not Applicable

OBJECTIVE	COMPLIANCE
a. Territorial Administration	NA (NPDES permit is required)
b. Village Development	NA
c. Shoreline Development	No development on the shoreline is proposed, and the project does not encourage new development.
d. Coastal Hazard	No development is planned above water, so that flooding and shoreline erosion will not a consideration.
e. Fisheries Development	NA
f. Slope Erosion	No development on land is proposed. Construction staging and mobilization will have minimal soil disturbance.
g. Major Facility Siting	The outfall is considered a water dependent, major facility. The location for the outfall was chosen to comply with water quality regulations and to avoid impacting coastal resources in the area.
h. Agricultural Development	NA
i. Reef Protection	The project will benefit the reefs by improving water quality in Pago Pago Harbor. The outfall pipeline route was chosen to avoid impacting the coral reefs in Pago Pago Harbor.
j. Recreation/Shoreline Access	Construction and mobilization will temporarily impact a portion of Pago Pago Park. Improved water quality will have a long term, permanent beneficial effect on water dependent recreational activities.
k. Water Quality	Extending the pipeline from the inner to middle Pago Pago Harbor will improve water quality throughout the harbor.
l. Marine Resources	The project will have a beneficial impact on marine life by improving the water quality in the Pago Pago Harbor. (Section 7 coordination in progress)
m. Drinking Water Quality	NA
n. Unique Areas	Pago Pago Harbor is a unique resource. The project will benefit the area by improving water quality in the harbor.

Table 1. Summary of Joint Cannery Outfall Project (continued)

OBJECTIVE	COMPLIANCE
o. Archaeological /Cultural/ Historic Resources	No archaeological, cultural or historic resources will be impacted by the outfall construction. (SHPO Coordination in progress)
p. Special Areas	Pago Pago Harbor is considered a Special Area by ASCMP. Construction of the outfall is a water dependent activity that is designed to improve water quality in the harbor.

**NOTICE OF APPLICATION AND PROPOSED ACTION
U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) REGION IX
75 Hawthorne Street San Francisco, California 94105-3901**

Applications for Permits to Transport and Dump Materials into Ocean Waters

Public Notice for Ocean Dumping Permit Numbers OD 93-01 and OD 93-02

Pursuant to Section 102 of the Marine Protection, Research and Sanctuaries Act (MPRSA) of 1972, as amended (33 U.S.C. § 1401 et seq.) and 40 C.F.R. § 222.3 of EPA's Ocean Dumping Regulations (42 Fed. Reg. 2462, Jan. 11, 1977), notice is hereby given by this office of complete applications for permits to transport and dispose fish processing wastes into ocean waters of Tutuila Island, American Samoa. The permit applicants are: STARKIST SEAFOOD COMPANY, INC. (an affiliate of H.J. HEINZ COMPANY), 180 East Ocean Blvd., Long Beach, CA 90802-4797 and VAN CAMP SEAFOOD COMPANY, INC., 4510 Executive Dr., Suite 300, San Diego, CA 92121-3029, for their respective subsidiary companies: STARKIST SAMOA, INC., P.O. Box 368, Pago Pago, American Samoa 96790 and VCS SAMOA PACKING COMPANY, INC., P.O. Box 957, Pago Pago, American Samoa 96799.

EPA has made a tentative decision to issue special ocean dumping permits to StarKist Samoa and VCS Samoa Packing Company for a three-year period. The Agency has determined that these permits are required for ocean disposal of fish processing wastes produced at canneries in Pago Pago, American Samoa. The fish processing wastes to be disposed from StarKist Samoa are: dissolved air flotation (DAF) sludge, cooker juice and press liquor. The fish processing wastes to be disposed from VCS Samoa Packing are: DAF sludge, precooker water and press water. Based on dilution levels expected at the designated ocean disposal site, the fish processing wastes are not expected to cause significant long-term impacts to oceanic water quality, marine ecosystems or human health.

The fish processing wastes will be disposed at an ocean disposal site 5.45 nautical miles southeast of Tutuila Island. The ocean disposal site has center coordinates of 14° 24.00' South latitude by 170° 38.20' West longitude and a radius of 1.5 nautical miles. The water depth at the disposal site is about 9,000 feet. This site was designated for use on February 6, 1990 (55 Fed. Reg. 3948) and was used by the two American Samoa canneries for disposal of fish processing wastes under MPRSA § 102 special permits OD 90-01 (StarKist Samoa) and OD 90-02 (VCS Samoa Packing Company) for three years. No significant long-term environmental impacts were found at the site during the monitoring activities.

During the term of special permits OD 93-01 and OD 93-02, the permittees must continue monitoring programs for fish processing waste streams, disposal vessel navigation and monthly ocean disposal site monitoring. Information compiled during the term of these permits and any previous information about ocean disposal of fish processing wastes off American Samoa will be used by EPA Region IX to determine compliance with EPA's Ocean Dumping Regulations defined at 40 C.F.R. Parts 220 through 228 and the Special MPRSA § 102 permits.

SUMMARY OF INFORMATION AND TENTATIVE DETERMINATION

DAF sludge is waste material that remains after treatment of fish processing wastes to remove grease and suspended particulate matter. DAF sludge also contains aluminum sulfate or alum (an odor reducing chemical) and coagulant polymers (to coagulate suspended matter) that are added during the waste treatment process. Cooker juice or precooker water is a combination of stick water and other process water that collects under the steam precookers at the fish plants. Press liquor or press water is waste water produced at the fish meal plants when fish scrap is cooked and pressed before being dried to produce livestock food meal.

There are no changes in the volumes of fish processing wastes proposed for disposal by either applicant. The proposed disposal volumes are:

Fish Processing Waste	StarKist Samoa (gallons/day)	VCS Samoa Packing (gallons/day)	Total Volume (gallons/day)
DAF Sludge	60,000	60,000	120,000
Cooker Juice	100,000	0	100,000
Precooker Water	0	100,000	100,000
Press Liquor	40,000	0	40,000
Press Water	0	40,000	40,000
Daily Maximum	200,000	200,000	400,000

During the term of special permits OD 93-01 and OD 93-02, the permittees must continue monitoring programs for fish processing waste streams, disposal vessel navigation, monthly ocean disposal site monitoring. Information compiled during the term of these permits and any previous information about ocean disposal of fish processing wastes off American Samoa will be used by EPA Region IX to determine compliance with EPA's Ocean Dumping Regulations defined at 40 C.F.R. Parts 220 through 228 and the Special MPRSA § 102 permits.

SUMMARY OF INFORMATION AND TENTATIVE DETERMINATION

DAF sludge is waste material that remains after treatment of fish processing wastes to remove grease and suspended particulate matter. DAF sludge also contains aluminum sulfate or alum (an odor reducing chemical) and coagulant polymers (to coagulate suspended matter) that are added during the waste treatment process. Cooker juice or precooker water is a combination of stick water and other process water that collects under the steam precookers at the fish plants. Press liquor or press water is waste water produced at the fish meal plants when fish scrap is cooked and pressed before being dried to produce livestock food meal.

There are no changes in the volumes of fish processing wastes proposed for disposal by either applicant. The proposed disposal volumes are:

Fish Processing Waste	StarKist Samoa (gallons/day)	VCS Samoa Packing (gallons/day)	Total Volume (gallons/day)
DAF Sludge	60,000	60,000	120,000
Cooker Juice	100,000	0	100,000
Precooker Water	0	100,000	100,000
Press Liquor	40,000	0	40,000
Press Water	0	40,000	40,000
Daily Maximum	200,000	200,000	400,000

Based on EPA Region IX's review of data collected under the previous MPRSA § 102 special permits, the following changes are proposed for the new permits: 1) new permit limits have been calculated which are mostly lower than the previous permit limits, 2) analysis of heavy metals in the waste streams has been deleted because data showed low concentrations of all analytes, 3) analysis of petroleum hydrocarbons in the waste streams has been deleted because fish oils interfere with this analysis, 4) a new disposal vessel (the FV TASMAN SEA) is authorized and a new set of bioassays and plume modeling are required to confirm that disposal operations are similar to the previous permitted actions, 5) a computerized navigation system is required to plot the course of the vessel accurately during disposal operations, and 6) new reporting forms have been developed to aid in reporting permit monitoring information. All other general and special conditions are similar to existing conditions in MPRSA § 102 special permits OD 90-01 and OD 90-02.

INITIATION OF HEARINGS AND PUBLIC COMMENTS

Within 30 days of the date of this notice, any person may request a public hearing to consider the issuance of, or the conditions to be imposed upon, these permits. Any such request for a public hearing must: 1) be in writing, 2) identify the person requesting the hearing, 3) state any objections to the issuance of, or to the conditions to be imposed upon, these permits, and 4) state the issues which are proposed to be considered at the hearing. Under 40 C.F.R. § 222.4, the Regional Administrator's determination on whether to hold a public hearing shall be based on whether the request presents genuine issues of policy or facts amenable to resolution by public hearing.

Comments on the tentative determination and requests for public hearings may be submitted in writing within 30 days of the date of publication of this notice to: Ms Janet Y. Hashimoto, Chief, Marine Protection Section (W-74), U.S. Environmental Protection Agency, Region IV, 75 Hawthorne Street, San Francisco, CA 94105-3901, telephone (415) 744-1156.

The Administrative Record, which includes the applications, the draft permits, the fact sheet describing the permits and changes from special permits OD 90-01 and OD 90-02, is available for public review Monday to Friday from 9:00 a.m. to 4:00 p.m. at the: EPA Region IX Library, 13th Floor, 75 Hawthorne Street, San Francisco, CA, (415) 744-1510; EPA Pacific Island Contact Office, 300 Ala Moana Boulevard, Room 5124, Honolulu, HI, (808) 541-2710; and American Samoa EPA, Executive Office Building, Office of the Governor, Pago Pago, American Samoa, (684) 633-2304.

DECLARATION OF PUBLICATION OF

900
PUBLIC NOTICES

900
PUBLIC NOTICES

NOTICE OF APPLICATION AND PROPOSED ACTION U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) REGION IX

75 HAWTHORNE STREET
SAN FRANCISCO, CALIFORNIA 94105-3901

Applications for Permits to Transport
and Dump Materials Into Ocean Waters

Public Notice for Ocean Dumping Permit Numbers
OD 90-01 and OD 90-02

Pursuant to Section 102 of the Marine Protection, Research and Sanctuaries Act (MPRSA) of 1972, as amended (33 U.S.C. § 1401 et seq.) and 40 C.F.R. § 222.3 of EPA's Ocean Dumping Regulations (42 Fed. Reg. 2482, Jan. 11, 1977), notice is hereby given by this office of complete applications for permits to transport and dispose fish processing wastes into ocean waters of Tutuila Island, American Samoa. The permit applicants are: STARKIST SEAFOOD COMPANY, INC. (an affiliate of H.J. HEINZ COMPANY), 180 East Ocean Blvd., Long Beach, CA 90802-4797 and VAN CAMP SEAFOOD COMPANY, INC., 4510 Executive Dr., Suite 300, San Diego, CA 92121-3029, for their respective subsidiary companies: STARKIST SAMOA, INC., P.O. BOX 368, PAGO PAGO, American Samoa 96799 and VCS SAMOA PACKING COMPANY, INC., P.O. Box 957, Pago Pago, American Samoa 96799.

EPA has made a tentative decision to issue special ocean dumping permits to Starkist Samoa and VCS Samoa Packing Company for a three-year period. The Agency has determined that these permits are required for ocean disposal of fish processing wastes produced at canneries in Pago Pago, American Samoa. The fish processing wastes to be disposed from Starkist Samoa are: dissolved air flocculation (DAF) sludge, cook juice and press liquor. The fish processing wastes to be disposed from VCS Samoa Packing are: DAF sludge, precooker water and press water. Based on dilution levels expected at the designated ocean disposal site, the fish processing wastes are not expected to cause significant long-term impacts to oceanic water quality, marine ecosystems or human health.

The fish processing wastes will be disposed at an ocean disposal site 5.45 nautical miles southeast of Tutuila Island. The ocean disposal site has center coordinates of 14 degrees, 24'00" South latitude by 170 degrees, 38'20" West longitude and a radius of 1.5 nautical miles. The water depth at the disposal site is about 9,000 feet. This site was designated for use on February 9, 1990 (55 Fed. Reg. 3948) and was used by the two American Samoa canneries for disposal of fish processing wastes under MPRSA § 102 special permits OD 90-01 (Starkist Samoa) and OD 90-02 (VCS Samoa Packing Company) for three years. No significant long-term environmental impacts were found at the site during site monitoring activities.

During the term of special permits OD 90-01 and OD 90-02, the permittees must continue monitoring programs for fish processing waste streams, disposal vessel navigation and monthly ocean disposal site monitoring. Information compiled during the term of these permits and any previous information about ocean disposal of fish processing wastes off American Samoa will be used by EPA Region IX to determine compliance with EPA's Ocean Dumping Regulations defined at 40 C.F.R. Parts 220 through 228 and the Special MPRSA § 102 permits.

SUMMARY OF INFORMATION AND TENTATIVE DETERMINATION

DAF sludge is waste material that remains after treatment of fish processing wastes to remove grease and suspended particulate matter. DAF sludge also contains aluminum sulfate or alum (an odor reducing chemical) and coagulant polymers (to coagulate suspended matter) that are added during the waste treatment process. Cooker juice or press water is a combination of stick water and other process water that collects under the steam pre-cookers at the fish plants. Press liquor or press water is waste water produced at the fish meal plants when fish scrap is cooked and pressed before being dried to produce livestock food meal.

There are no changes in the volumes of fish processing wastes proposed for disposal by either applicant. The proposed disposal volumes are:

Fish Processing Waste	Starkist Samoa (gallons/day)	VCS Samoa Packing	Total Volume (gallons/day)
DAF Sludge	60,000	60,000	120,000
Cooker Juice	100,000	0	100,000
Precooker Water	0	100,000	100,000
Press Liquor	40,000	0	40,000
Press Water	0	40,000	40,000
Daily Maximum	200,000	200,000	400,000

Based on EPA Region IX's review of data collected under the previous MPRSA § 102 special permits, the following changes are proposed for the new permits: 1) new permit limits have been calculated which are mostly lower than the previous permit limits; 2) analysis of heavy metals in the waste streams has been deleted because data showed low concentrations of all analytes; 3) analysis of petroleum hydrocarbons in the waste streams has been deleted because fish oils interfere with this analysis; 4) a new disposal vessel (the FV TASMAR SEA) is authorized and a new set of bioassays and plume modeling are required to confirm that disposal operations are similar to the previous permitted actions; 5) a computerized navigation system is required to plot the course of the vessel accurately during disposal operations; and 6) new reporting forms have been developed to aid in reporting permit monitoring information. All other general and special conditions are similar to existing conditions in MPRSA § 102 special permits OD 90-01 and OD 90-02.

INITIATION OF HEARINGS AND PUBLIC COMMENTS

Within 30 days of the date of this notice, any person may request a public hearing to consider the issuance of, or the conditions to be imposed upon, these permits. Any such request for a public hearing must: 1) be in writing; 2) identify the person requesting the hearing; 3) state any objections to the issuance of, or to the conditions to be imposed upon, these permits; and 4) state the issues which are proposed to be considered at the hearing. Under 40 C.F.R. § 222.4, the Regional Administrator's determination on whether to hold a public hearing shall be based on whether the request presents genuine issues of policy or facts amenable to resolution by public hearing.

Comments on the tentative determination and requests for public hearings may be submitted in writing within 30 days of the date of publication of this notice to: Ms. Janet Y. Hashimoto, Chief, Marine Protection Section (W-7-1), U.S. Environmental Protection Agency, Region IX, 75 Hawthorne Street, San Francisco, CA 94105-3901, telephone (415) 744-1156.

The Administrative Record, which includes the applications, the draft permits, the fact sheet describing the permits and changes from special permits OD 90-01 and OD 90-02, is available for public review Monday to Friday from 9:00 a.m. to 4:00 p.m. at the EPA Region IX Library, 13th Floor, 75 Hawthorne Street, San Francisco, CA, (415) 744-1510; EPA Pacific Island Contact Office, 300 Ala Moana Boulevard, Room 5124, Honolulu, HI, (808) 541-2710; and American Samoa EPA, Executive Office Building, Office of the Governor, Pago Pago, American Samoa, (684) 633-2304.

Linda Edwards

declares that:

The annexed advertisement has been regularly published in the

SAN FRANCISCO CHRONICLE
and
SAN FRANCISCO EXAMINER

which are and were at all times herein mentioned established as newspapers of general circulation in the City and County of San Francisco, State of California, as that term is defined by Section 6000 of the Government Code.

San Francisco Chronicle
(Name of Newspaper)

From *June 11*, 19*93*

To *June 11*, 19*93*

Both days inclusive, namely, on

June 11, 1993
(Dates of Publication)

I declare under penalty of perjury that the foregoing is true and correct.

Executed on *June 11*, 19*93*
at San Francisco, California.

Lee E...



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

Editor

San Francisco Chronicle
950 Mission St.
San Francisco, CA 94103
Attn: Legal Advertisement

MAY 27 1993

RE: Printing of the Public Notice for an Ocean Dumping Permit

Dear Editor:

Enclosed is an advertisement order for \$3,100, as quoted over the telephone by Linda Edwards on May 26, 1993, and a copy of a public notice for announcing applications for special ocean dumping permits by StarKist Samoa, Inc. and VCS Samoa Packing Company, and a tentative determination by the U.S. Environmental Protection, Region IX to issue the permits. Please schedule the enclosed public notice to appear in the Classified Advertisement, Legal Notice Section, of your newspaper as soon as possible for one time only. Please use the minimum amount of space necessary to produce a legible legal advertisement.

Upon issuance of the public notice in your newspaper, please provide our office with two affidavits or proofs of publication. The two affidavits and a copy of the advertising order should be sent to:

Janet Hashimoto, Chief
Marine Protection Section (W-7-1)
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, California 94105-3901

If you have any questions on in this matter please call me at (415) 744-1156, or you may call Patricia Young at (415) 744-1594.

Sincerely,

A handwritten signature in cursive script, appearing to read "Janet Hashimoto".

Janet Hashimoto, Chief
Marine Protection Section (W-7-1)

Enclosures (2)

ADVERTISING ORDER

PF0048

DEPARTMENT, OR ESTABLISHMENT, BUREAU OR OFFICE

ORDER NUMBER

DATE

U. S. Environmental Protection Agency, Region IX

5/28/93

The publisher of the publication named below is authorized to publish the enclosed advertisement according to the schedule below provided the rates are not in excess of the commercial rates

charged to private individuals with the usual discounts. It is to be set solid, without paragraphing, and without any display in the heading unless otherwise expressly authorized in the specifications.

NAME OF THE PUBLICATION ADVERTISED IN

San Francisco Chronicle, 814 Mission St., 5th Floor, San Francisco, CA 94103

SUBJECT OF ADVERTISEMENT

Public Notice OD 93-01 and OD 93-02

SECTION OF PAPER ADVERTISEMENT APPEARED

NUMBER OF TIMES ADVERTISEMENT APPEARED

One time only.

DATED ADVERTISEMENT APPEARED

SPECIFICATIONS FOR ADVERTISEMENT

PLEASE NOTE: PAYMENT CANNOT BE MADE UNTIL THE BACK OF THIS FORM IS COMPLETED. ALSO SUBMIT TWO (2) COPIES OF AFFIDAVIT OF PUBLICATION.

For further information CONTACT: Patrick Cotter (415) 744-1163

COPY FOR ADVERTISEMENT

SEE ATTACHED.

Accounting Data		ORDER NO.	ACCT. NO.	OC	ESTIMATED COST	FC
CC10-14	DCN CC15-20	CC21-30	CC31-40			
0501	PF0048	0000	3B4909L000	2540	\$3,100.00	N

AUTHORITY TO ADVERTISE		INSTRUMENT OF ASSIGNMENT	
NUMBER	DATE	NUMBER	DATE
EPA Order 1210.5a	December 13, 1973	N/A	N/A

SIGNATURE OF AUTHORIZING OFFICIAL	TITLE
TOM WARNER	Chief, Admin. Management Branch

6/1/93 \$3100.00

INSTRUCTIONS TO PUBLISHERS

Extreme care should be exercised to insure that the specifications for advertising to be set other than solid be definite, clear, and specific since no allowance will be made for paragraphing or for display or leaded or prominent headings, unless specifically ordered, or for additional space required by the use of type other than that specified. Specifications for advertising other than solid and the advertisement copy submitted to the publisher will be attached to the voucher. The following is a sample of solid line advertisement set up in accordance with the usual Government requirements.

DEPARTMENT OF HIGHWAYS & TRAFFIC
B.C. Bids are requested for first spring 1964 contract concrete repair contract, including incidental work, Washington, D.C., Invitation No. C-4876-M, consisting of 11,000 sq. yds. FCC Class 25 sidewalk repair and 2,000 sq. yds. FCC Class A pavement, alley, & driveway repair, both cut repairs only. Bidding material available from the Procurement Officer, D.C. Sealed bids to be opened in the Procurement Office at 9:00 a.m., November 11, 1964.

Your bill for this advertising order should be submitted on the "Public Voucher for Advertising" form, which is printed on the reverse of this form, immediately after the last publication of the advertisement. If copies of the printed advertisement are not available, complete the affidavit provided on the voucher. Submit the voucher and a copy of the printed advertisement to _____

US Environmental Protection Agency
Financial Management Office (P-4)
75 Hawthorne Street
San Francisco, CA 94105
IMPORTANT

Charges for advertising when a cut, matrix, stereotype or electrotype is furnished will be based on actual space used and no allowance will be made for shrinkage.

In no case shall the advertisement extend beyond the date and edition stated in this order.

SYMBOL	W-7-1	W-7-1	W-7-1	W-7-1		
SURNAME	CHAC	SCHAC	CHAC	CHAC		
DATE	5/28/93	5/28/93	5/28/93	5/28/93		
U.S. EPA CONCURRENCES						

OFFICIAL FILE COPY



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

Editor

American Samoa News

P.O. Box 909

Pago Pago, American Samoa 96799

MAY 27 1993

RE: Printing of the Public Notice for Two Ocean Dumping Permits

Dear Editor:

Enclosed is advertisement order for \$120, as quoted by your fax of May 26, 1993, and a copy of a public notice for announcing applications for special ocean dumping permits by StarKist Samoa, Inc. and VCS Samoa Packing Company, and a tentative determination by the U.S. Environmental Protection, Region IX to issue the permits. Please schedule the enclosed public notice to appear in the Classified Advertisement, Legal Notice Section, of your newspaper as soon as possible for one time only. Please use the minimum amount of space necessary to produce a legible legal advertisement.

Upon issuance of the public notice in your newspaper, please provide our office with two affidavits or proofs of publication. The two affidavits and a copy of the advertising order should be sent to:

Janet Hashimoto, Chief
Marine Protection Section (W-7-1)
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, California 94105-3901

If you have any questions on in this matter please call me at (415) 744-1156, or you may call Patricia Young at (415) 744-1594.

Sincerely,

A handwritten signature in cursive script, appearing to read "Janet Hashimoto".

Handwritten initials, possibly "JH", in cursive script.

Janet Hashimoto, Chief
Marine Protection Section (W-7-1)

Enclosures (2)

ADVERTISING ORDER

ORDER NUMBER PF0049

DEPARTMENT, OR ESTABLISHMENT, BUREAU OR OFFICE

DATE

U. S. Environmental Protection Agency, Region IX

5/28/93

The publisher of the publication named below is authorized to publish the enclosed advertisement according to the schedule below provided the rates are not in excess of the commercial rates

charged to private individuals with the usual discounts. It is to be set solid, without paragraphing, and without any display in the heading unless otherwise expressly authorized in the specifications.

NAME OF THE PUBLICATION ADVERTISED IN

Samoa News, P.O. Box 909, Pago Pago, American Samoa 96799

SUBJECT OF ADVERTISEMENT

Public Notice OD 93-01 and OD 93-02

SECTION OF PAPER ADVERTISEMENT APPEARED

NUMBER OF TIMES ADVERTISEMENT APPEARED

DATED ADVERTISEMENT APPEARED

One time only.

SPECIFICATIONS FOR ADVERTISEMENT

PLEASE NOTE: PAYMENT CANNOT BE MADE UNTIL THE BACK OF THIS FORM IS COMPLETED. ALSO SUBMIT TWO (2) COPIES OF AFFIDAVIT OF PUBLICATION.

For further information CONTACT: Patrick Cotter (415) 744-1163

COPY FOR ADVERTISEMENT

SEE ATTACHED.

Accounting Data						
CC10-14	DCN CC15-20	ORDER NO. CC21-30	ACCT. NO. CC31-40	OC	ESTIMATED COST	FC
0501	PF0049	0000	3B49091000	2540	\$120.00	N
AUTHORITY TO ADVERTISE				INSTRUMENT OF ASSIGNMENT		
NUMBER EPA Order 1210.5a				NUMBER N/A		
DATE December 13, 1973				DATE N/A		
SIGNATURE OF AUTHORIZING OFFICIAL TOM WARNER				TITLE Chief, Admin. Management Branch		

6/1/93

9/20/93

INSTRUCTIONS TO PUBLISHERS

Extreme care should be exercised to insure that the specifications for advertising to be set other than solid be definite, clear, and specific since no allowance will be made for paragraphing or for display or leaded or prominent headings, unless specifically ordered, or for additional space required by the use of type other than that specified. Specifications for advertising other than solid and the advertisement copy submitted to the publisher will be attached to the voucher. The following is a sample of solid line advertisement set up in accordance with the usual Government requirements.

DEPARTMENT OF HIGHWAYS & TRAFFIC.
B.C. Bids are requested for first spring 1964 on-
street concrete repair contract, including inci-
dental work, Washington, D.C. Invitation No.
C-4476-M, consisting of 11,000 sq. yds. FCC Class
BB sidewalk repair and 2,000 sq. yds. FCC Class
A pavement, alley, & driveway repair, both cut
repair only. Bidding material available from the
Procurement Officer, D.C. Sealed bids to be opened
in the Procurement Office at 2:00 p.m.,
November 14, 1964.

Your bill for this advertising order should be submitted on the "Public Voucher for Advertising" form, which is printed on the reverse of this form, immediately after the last publication of the advertisement. If copies of the printed advertisement are not available, complete the affidavit provided on the voucher. Submit the voucher and a copy of the printed advertisement to _____

US Environmental Protection Agency
Financial Management Office (P-4)
75 Hawthorne Street
San Francisco, CA 94105
IMPORTANT

Charges for advertising when a cut, matrix, stereotype or electro-
type is furnished will be based on actual space used and no allow-
ance will be made for shrinkage.

In no case shall the advertisement extend beyond the date and
edition stated in this order.

SYMBOL	W-7-1	W-7-1	W-7-1	W-7-1		
SURNAME	Chlor	St...	Chlor	St...		
DATE	5/27/93	5/27/93	5/27/93	5/27/93		
U.S. EPA CONCURRENCES						

OFFICIAL FILE COPY



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

**75 Hawthorne Street
San Francisco, CA 94105-3901**

James L. Cox, Director
Engineering and Environmental Affairs
Van Camp Seafood Company, Inc.
4510 Executive Drive, Suite 300
San Diego, California 92121-3029

MAY 27 1993

RE: Notice of Complete Application and Tentative Decision to Issue a Special Ocean Dumping Permit (OD 93-02) to VCS Samoa Packing

Dear Mr. Cox:

The U.S. Environmental Protection Agency (EPA), Region IX, has determined that VCS Samoa Packing's application for an ocean dumping permit is complete. We have prepared a draft special ocean dumping permit (OD 93-02) under Section 102 of the Marine Protection, Research and Sanctuaries Act (MPRSA) for VCS Samoa Packing's disposal operations. This special permit authorizes disposal of fish processing wastes into the Pacific Ocean off American Samoa for a three-year period. The designated disposal site is 5.45 nautical miles from land (14° 24.00' South latitude by 170° 38.20' West longitude) with a radius of 1.5 nautical miles in about 1,500 fathoms of water.

Information gathered during the term of this special permit and VCS Samoa Packing's previous special permit will be used to continue EPA's management of the fish processing waste disposal program off American Samoa. If, at any time, EPA Region IX determines that the disposal operations do not meet the ocean dumping regulations at 40 C.F.R. Parts 220 through 228, we will reconsider permission to use the designated site.

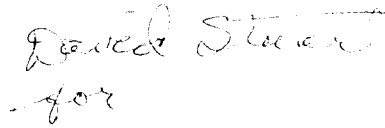
VCS Samoa Packing, as the permittee, will be required to conduct the site monitoring program contained in the special permit. Please note the requirements for reporting of field and laboratory analyses, analytical detection limits and dump site monitoring procedures.

EPA Region IX has developed the following documents to support the tentative determination for this special permit:

1. The public notice for EPA Region IX's action.
2. A fact sheet that describes the rationale behind EPA Region IX's decision.
3. The draft special permit which includes general and special conditions.

If you have comments on the proposed special permit, please submit your concerns in writing within 30 days of the publication date to me at the EPA address above. If you have any questions regarding the permit, you may call Patricia Young at (415) 744-1594, or me at (415) 744-1156.

Sincerely,

A handwritten signature in cursive script, appearing to read "Janet Y. Hashimoto".

Janet Y. Hashimoto, Chief
Marine Protection Section (W-7-1)

Enclosures (3)

cc: Togipa Tausaga, ASEPA
Sheila Wiegman, ASEPA
Lt. Cmdr. Randy Clark, USCG-LO Pago Pago
Michael Macready, VCS Samoa Packing Company
Norman Wei, StarKist Seafood
Maurice Callaghan, StarKist Samoa

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX

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SYMBOL	<i>2-1</i>	<i>E-4</i>	<i>E-4</i>	<i>W-1-1</i>		
SURNAME	<i>2-1</i>	<i>ppm</i>	<i>Stramh/NL</i>	<i>2-1</i>		
DATE	<i>5/27/93</i>	<i>5/27/93</i>	<i>5/27/93</i>	<i>5/27/93</i>		
U.S. EPA CONCURRENCES					OFFICIAL FILE COPY	

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Sincerely,

Janet Y. Hashimoto, Chief
Marine Protection Section (W-7-1)

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**MARINE PROTECTION, RESEARCH AND SANCTUARIES ACT § 102
OCEAN DUMPING PERMIT**

PERMIT NUMBER AND TYPE: OD 93-02 Special

EFFECTIVE DATE: July 31, 1993

EXPIRATION DATE: July 31, 1996

PERMITTEE: VCS Samoa Packing Company, Inc.
P.O. Box 957
Pago Pago, American Samoa 96799

WASTE GENERATOR: VCS Samoa Packing Company, Inc.
P.O. Box 957
Pago Pago, American Samoa 96799

WASTE GENERATED AT: VCS Samoa Packing Company, Inc.
P.O. Box 957
Pago Pago, American Samoa 96799

PORT OF DEPARTURE: Pago Pago Harbor, American Samoa

WASTE TRANSPORTER: FV TASMAN SEA
Blue North Fisheries, Inc.
1130 N.W. 45th Street
Seattle, Washington 98107-4626

A special ocean dumping permit is being issued to VCS Samoa Packing Company, Inc. because the Regional Administrator of EPA Region IX has determined that disposal of fish processing wastes off American Samoa meets EPA's ocean dumping criteria at 40 C.F.R. Parts 227 and 228. For this permit, the term "fish processing wastes" shall mean either dissolved air flotation (DAF) sludge, precooker water or press water generated at the permittee's plant in Pago Pago, American Samoa.

This special permit authorizes the transportation and dumping into ocean waters of fish processing wastes as described in the special conditions section pursuant to the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 (33 U.S.C. § 1401 *et seq.*) as amended (hereinafter referred to as "the Act"); regulations issued thereunder; and the terms and conditions stated below.

This MPRSA Special Permit does not contain any information collection requirements subject to Office of Management and Budget review under the Paper Work Reduction Act of 1980 (44 U.S.C. § 3501 *et seq.*). This determination has been made because the permit does not require data collection by more than 10 persons.

1. GENERAL CONDITIONS

- 1.1. Operation under this special ocean dumping permit shall conform to all applicable federal statutes and regulations including, but not limited to, the Act, the Ocean Dumping Ban Act of 1988 (P.L. 100-688), the Marine Plastic Pollution Research and Control Act of 1987 (P.L. 100-220), the Clean Water Act (33 U.S.C. § 1251 *et seq.*), and the Ports and Waterways Safety Act (33 U.S.C. § 1221 *et seq.*).
- 1.2. All transportation and dumping authorized herein shall be undertaken in a manner consistent with the terms and conditions of this permit. VCS Samoa Packing Company, Inc. (hereafter referred to as "the permittee") shall be liable for compliance with all such terms and conditions. The permittee shall be held liable under § 105 of the Act (33 U.S.C. § 1415) if any permit violations occur. During disposal operations when the permittee's fish processing wastes are combined with similar fish processing wastes from other permittees authorized to use the ocean disposal site defined in Special Condition 2.2, all companies shall be held individually liable under § 105 of the Act (33 U.S.C. § 1415) if a permit violation occurs.
- 1.3. Under § 105 of the Act, any person who violates any provision of the Act, 40 C.F.R. Parts 220 through 228 promulgated thereunder, or any term or condition of this permit shall be liable for a civil penalty of not more than \$50,000 per day for each violation. Additionally, any knowing violation of the Act, 40 C.F.R. Parts 220 through 228, or the permit may result in a criminal action being brought with penalties of not more than \$50,000 or one year in prison, or both. Violations of the Act or the terms and conditions of this permit include but are not limited to:
 - 1.3.1. Transportation to, and dumping at any location other than that defined in Special Condition 2.2 of this permit;
 - 1.3.2. Transportation and dumping of any material not identified in this permit, more frequently than authorized in this permit, or more than the quantities identified in this permit, unless specifically authorized by a written modification hereto;
 - 1.3.3. Failure to conduct permit monitoring as required in Special Conditions 3.1, 3.3.1, 4.7 and 5.1; or
 - 1.3.4. Failure to file fish processing waste stream reports and disposal site monitoring reports as required in Special Conditions 3.3, 4.7, 5.2 and 5.3.
- 1.4. Nothing contained herein shall be deemed to authorize, in any way, the transportation from the United States for the purpose of dumping into the ocean waters, the territorial sea, or the contiguous zone, the following materials:
 - 1.4.1. High-level radioactive wastes;
 - 1.4.2. Materials, in whatever form, produced for radiological, chemical, or biological warfare;

- 1.4.3. Persistent synthetic or natural materials which may float or remain in suspension in the ocean; or
- 1.4.4. Medical wastes as defined in § 3(k) of the Act.
- 1.4.5. Flotables, garbage, domestic trash, waste chemicals, solid waste, or any materials prohibited by the Ocean Dumping Ban Act or the Marine Plastic Pollution Research and Control Act.
- 1.5. Nothing contained herein shall be deemed to authorize, in any way, violation of applicable American Samoa Water Quality Standards. The following water quality standards apply:

Table 1. 1989 American Samoa Water Quality Standards: Oceanic Waters [§24.0207(g)(1-7)].

Parameter	Median Not to Exceed the Given Value
Turbidity	0.20 NTU
Total Phosphorus	11.0 µg-P/L
Total Nitrogen	115.0 µg-N/L
Chlorophyll <i>a</i>	0.18 µg/L
Light Penetration Depth	150 feet, to exceed the given value 50% of the time.
Dissolved Oxygen	Not less than 80% of saturation or less than 5.5 mg/L. If the natural level of dissolved oxygen is less than 5.5 mg/L, then the natural dissolved oxygen level shall become the standard.
pH	The pH range shall be 6.5 to 8.6 pH units and within 0.2 pH units of the level which occurs naturally.

- 1.6. After notice and opportunity for a hearing, this permit may be revised, revoked or limited, in whole or in part, subject only to the provisions of 40 C.F.R. §§ 222.3(b) through 222.3(h) and 40 C.F.R. § 223.2, as a result of a determination by the Regional Administrator of EPA that:
 - 1.6.1. The cumulative impact of the permittee's dumping activities or the aggregate impact of all dumping activities in the dump site designated in Special Condition 2.2 should be categorized as Impact Category I, as defined in 40 C.F.R. § 228.10(c)(1);

- 1.6.2. There has been a change in circumstances about the management of the disposal site designated in Special Condition 2.2;
- 1.6.3. The dumping authorized by the permit would violate applicable American Samoa Water Quality Standards;
- 1.6.4. The dumping authorized can no longer be carried out consistent with the criteria defined at 40 C.F.R. Parts 227 and 228;
- 1.6.5. The permittee violated any term or condition of the permit;
- 1.6.6. The permittee misrepresented, or did not disclose all relevant facts in the permit application accurately; or
- 1.6.7. The permittee did not keep records, engage in monitoring and reporting activities, or to notify appropriate officials in a timely manner of the transportation and dumping activities as specified in any condition of this permit.
- 1.7. The permittee shall ensure always that facilities, including any vessels associated with the permit, are in good working order to achieve compliance with the terms and conditions of this permit. During all transportation and loading operations, there shall not be a loss of fish processing wastes to any waterway or during transport to the disposal site.
- 1.8. Any change in the designated fish processing waste transporter may be made at the discretion of the Regional Administrator or his delegate. A written request for such a transfer shall be made by the permittee at least thirty (30) days before the requested transfer date. Written approval by the EPA Regional Administrator must be obtained before such a transfer occurs.
- 1.9. The permittee shall allow the EPA Regional Administrator, the Commander of the Fourteenth U.S. Coast Guard District (USCG), the Director of the American Samoa Environmental Protection Agency (ASEPA), and/or their authorized representatives to:
 - 1.9.1. Enter into, upon, or through the permittee's premises, vessels, or other premises or vessels under the control of the permittee, where, or in which, a source of material to be dumped is located or in which any records are required to be kept under the terms and conditions of this permit or the Act;
 - 1.9.2. Have access to and copy any records required to be kept under the terms and conditions of this permit or the Act;
 - 1.9.3. Inspect any dumping equipment, navigational system equipment, monitoring equipment or monitoring methods required in this permit;

- 1.9.4. Sample or require that a sample be drawn, under EPA, USCG, or ASEPA supervision, of any materials discharged or to be discharged; or
- 1.9.5. Inspect laboratory facilities, data, and quality control records required for compliance with any condition of this permit.
- 1.10. Material which is regulated by this permit may be disposed of, due to an emergency, to safeguard life at sea in locations or in a manner that does not comply with the terms of this permit. If this occurs, the permittee shall make a full report, according to the provisions of 18 U.S.C. § 1001, within 15 days to the EPA Regional Administrator, the USCG and the ASEPA describing the conditions of this emergency and the actions taken, including the location, the nature and the amount of material disposed.
- 1.11. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of rights, nor any infringement of Federal, State or local laws or regulations, nor does it obviate the necessity of obtaining State or local assent required by applicable law for the activity authorized.
- 1.12. This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities, or, except as authorized by this permit, the conduct of any work in any navigable waters.
- 1.13. Unless otherwise provided for herein, all terms used in this permit shall have the meanings assigned to them by the Act or 40 C.F.R. Parts 220 through 228, issued thereunder.

2. SPECIAL CONDITIONS - DISPOSAL SITE AND FISH PROCESSING WASTE CHARACTERIZATION

Special conditions are necessary to define the length of the permit period, identify the disposal site location, describe fish processing wastes and define maximum permitted limits for each fish processing waste.

2.1. Location of the Waste Generator and Duration of the Permit

- 2.1.1. The material to be dumped shall consist of fish processing wastes, defined in Special Conditions 2.3 and 2.4, generated at the permittee's fish cannery in Pago Pago, American Samoa.
- 2.1.2. This permit shall become effective on July 31, 1993 and it shall expire three years from the effective date at midnight on July 31, 1996.

2.2. Location of Disposal Site

Disposal of fish processing wastes generated at the location defined in Special Condition 2.1.1 shall be confined to a circular area with a 1.5 nautical mile radius, centered at 14° 24.00' South latitude by 170° 38.30' West longitude.

2.3. Description of Fish Processing Wastes

2.3.1. During the term of this permit, and according to all other terms and conditions of this permit, the permittee is authorized to transport for disposal into ocean waters quantities of fish processing wastes that shall not exceed the following amounts:

Table 2. Volumes of Fish Processing Wastes Authorized for Disposal.

Fish Processing Waste	Maximum Volume Authorized for Disposal (gallons/day)
Dissolved Air Flotation (DAF) Sludge	60,000
Precooker Water	100,000
Press Water	40,000
Maximum Daily Volume	200,000

2.4. Fish Processing Waste Limits

Table 3. Limits for DAF Sludge, Precooker Water and Press Water.

Physical or Chemical Parameter (units)^a	DAF Sludge	Precooker Water	Press Water
Total Solids (mg/L)	461,790	115,180	381,510
Total Volatile Solids (mg/L)	455,560	84,450	409,310
5-Day BOD (mg/L)	349,350	64,650	365,550
Oil and Grease (mg/L)	395,700	11,180	165,860
Total Phosphorus (mg/L)	3,790	1,850	2,950
Total Nitrogen (mg/L)	21,820	12,830	35,100
Ammonia (mg/L)	3,470	410	830
pH (pH units)	4.8 to 7.0	5.5 to 6.6	5.5 to 6.8
Density (g/mL)	0.86 to 1.05	0.95 to 1.06	0.96 to 1.06

a = All calculated values were rounded to the nearest 10, except the density and pH ranges.

- 2.4.2. Permitted Maximum Concentrations for each type of fish processing waste were calculated based on an analysis of historical data from the permittee's previous Special Ocean Dumping Permit, number OD 90-02. The calculations followed EPA's recommended procedure for determining permit limits as defined in the EPA document titled: "Guidance Document for Ocean Dumping Permit Writers" (January 30, 1988). EPA will periodically review these limits during the permit to evaluate the accuracy of the limits. If revisions are necessary, EPA will make changes according to the authority defined in the Ocean Dumping Regulations at 40 C.F.R §§ 223.2 through 223.5.
- 2.4.3. The Permitted Maximum Concentrations, density range and pH range listed above, shall not be exceeded at any time during the term of this permit.

3. SPECIAL CONDITIONS - ANALYSIS OF FISH PROCESSING WASTES

Compliance with the permitted maximum concentrations defined in Special Condition 2.4 shall be determined by monthly monitoring of **each of the fish processing waste stream** permitted for ocean disposal. Additional analyses of fish processing wastes and reporting requirements are defined in this section. Any sampling dates shall be scheduled within the first two weeks of the month to allow enough time for laboratory analyses and report writing to comply with Special Condition 3.3.

3.1. Analyses of Fish Processing Wastes

- 3.1.1. Concentrations or values of the parameters listed in Special Condition 2.4 and those listed in the table below shall be determined for each fish processing waste stream. A sample of each fish processing waste stream shall be taken before the individual streams are mixed before being pumped into the disposal vessel. A sample shall consist of three replicate samples, taken on the day that sampling is scheduled, pooled for use as a composite sample. The detection limits specified in Table 4 shall be used in all fish processing waste stream analyses.

Table 4. Physical and Chemical Parameters to be Analyzed from Individual Samples of DAF Sludge, Precooker Water and Press Water.

Parameter	Method Detection Limit
Total Solids	10.0 mg/L
Total Volatile Solids	10.0 mg/L
5-Day BOD	10.0 mg/L

Parameter	Method Detection Limit
Oil and Grease	10.0 mg/L
Total Phosphorus	1.0 mg/L
Total Nitrogen	1.0 mg/L
Ammonia	1.0 mg/L
pH	0.1 pH units
Density	0.01 g/mL

3.1.2. All sampling procedures, analytical protocols, and quality control/quality assurance procedures shall be performed according to guidelines specified by EPA Region IX. The following references shall be used by the permittee:

3.1.2.1. 40 C.F.R. Part 136, EPA Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act;

3.1.2.2. Tetra Tech, Incorporated. 1985. Summary of U.S. EPA-approved Methods, Standard Methods and Other Guidance for 301(h) Monitoring Variables. Final program document prepared for the Marine Operations Division, Office of Marine and Estuarine Protection, U.S. Environmental Protection Agency. EPA Contract No. 68-02-693. Tetra Tech, Incorporated, Bellevue, Wa.; and

3.1.2.3. Environmental Protection Agency. 1987. Quality Assurance and Quality Control for 301(h) Monitoring Programs: Guidance on Field and Laboratory Methods. Office of Marine and Estuarine Protection, Washington, D.C. EPA 430/9-86-004.

3.1.3. Any parameters listed in Special Condition 3.1.1 that are shown to be consistently undetected, may be eliminated from further analytical tests. Before elimination of the parameter is permitted, the permittee shall obtain written approval from EPA Region IX and the ASEPA.

3.2. Analytical Laboratory

3.2.1. Within 30 days of the effective date of this permit, the name and address of the contract laboratory or laboratories and a description of all analytical test procedures and quality assurance/quality control procedures, including detection limits being used, shall be provided for EPA Region IX approval.

- 3.2.2. Any potential variation or change in the designated laboratory or analytical procedures shall be reported, in writing, for EPA Region IX approval.
- 3.2.3. EPA Region IX may require analyses of quality control samples by any laboratories employed to comply with Special Condition 3.1 and Appendix A. Upon request, the permittee shall provide EPA Region IX with the analytical results from such samples.
- 3.2.4. A complete analysis of parameters, required in Special Condition 3.1, shall be made by the permittee and reported to EPA Region IX and the ASEPA whenever there is a change in the quality of the fish processing waste, process configuration, or fish processing waste treatment. If required by EPA Region IX, bioassays shall be required in addition to parameter analyses.

3.3. Reporting

- 3.3.1. The permittee shall provide EPA Region IX, ASEPA, the National Marine Fisheries Service (NMFS), the U.S. Fish and Wildlife Service (USFWS) and the Western Pacific Regional Fishery Management Council (WPRFMC) with a report, prepared every 6 months during the permit period, that contains the following information:
 - 3.3.1.1. Daily volumes of DAF sludge, Precooker Water and Press Water removed from the permittee's facility, and loaded into the disposal vessel reported in gallons per day using Form 1 (see Appendix B);
 - 3.3.1.2. Monthly fish processing waste stream analyses demonstrating that the fish processing wastes being dumped comply with the permitted limits of parameters listed in Special Condition 2.4 and a summary of the volumes of fish processing wastes disposed at the ocean site using Form 2 (see Appendix B);
 - 3.3.1.3. The monthly amount of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams reported in pounds per month (see Forms 1 and 2).
- 3.3.2. Such reports, including a comparison with the permit limits as required on Forms 1 and 2, shall be submitted to EPA Region IX, ASEPA, NMFS USFWS and WPRFMC within 45 days of the end of the preceding 6-month period for which they were prepared. The reports shall be submitted within this time unless extenuating circumstances are communicated to EPA Region IX and the ASEPA in writing. In addition to a hard copy of Forms 1 and 2, the data contained on Form 1 shall be submitted to EPA Region IX on a 3.5" computer diskette in a format compatible with LOTUS version 2.2.

- 3.3.3. A summary report of all 6-month reports listed in Special Condition 3.3.1, including a comparisons with permit limits and a detailed discussion of the summary results, shall be submitted by the permittee to EPA and the ASEPA 45 days after the permit expires. All fish processing waste stream data shall be reported in the same format as required in Special Condition 3.3.2.
- 3.3.4. Upon detection of a violation of any permit condition, the permittee shall send a written notification of this violation to EPA Region IX and the ASEPA within five working days and a detailed written report of the violation shall be sent to the agencies within 15 working days. This notification shall pertain to any permit limits (defined in Special Condition 2.4) that are exceeded, violation of volume limits (defined in Table 2 under Special Condition 2.3.1), and any disposal operation that occurs outside the disposal site defined in Special Condition 2.2.
- 3.3.5. One year from the effective date of this special permit, the permittee shall submit a report to EPA and ASEPA on the results of suspended phase bioassay tests and reevaluation of the model used to predict the concentrations of fish processing wastes disposed at the designated site. The suspended phase bioassays shall be conducted using at least one species from each of the following three groups: Group 1 = *Mytilus* sp. (mussel), *Crassostrea* sp. (oyster), *Acartia tonsa* (copepod), or *Trypneustes* sp. (sea urchin) larvae; Group 2 = *Holmsemysis costata* (mysid shrimp) or *Penaeus vannamei* (white shrimp); and Group 3 = *Citharichthys stigmaeus* (speckled sanddab) or *Coryphaena hippurus* (dolphinfish) juveniles.

Appropriate suspended phase bioassay protocols, either protocols approved by EPA or protocols published by the American Society for Testing and Materials (ASTM), shall be followed. Suspended particulate phase bioassays shall be run using the following fish processing waste concentrations: 100%, 75%, 50%, 25%, 12.5% and a control (0%). A minimum of five replicates are required per dilution concentration. Concurrent reference toxicant tests shall be conducted when the suspended phase bioassays are run.

A sampling and testing plan shall be submitted to EPA Region IX and ASEPA for approval before the bioassay tests are conducted. The testing plan should also include a proposal to reevaluate the disposal site model using results obtained from the new series of suspended phase bioassays. These bioassays are being required to confirm the toxicity of the fish processing wastes and to reevaluate the disposal operations based on the use of different disposal vessels.

The bioassay and model confirmation report shall contain the following information:

3.3.5.1. INTRODUCTION AND PROJECT DESCRIPTION

The project description should include the following information about fish processing waste toxicity, previous bioassay test results, previous modelling at the ocean disposal site, and the design of the new bioassay tests.

3.3.5.2. MATERIALS AND METHODS

Fish processing waste sampling and sample handling procedures should be described or referenced.

References for laboratory protocols for suspended phase bioassay tests.

- 1) EPA-approved methods and references.
- 2) Test species used in each test, the supplier or collection site for each test species, and QA/QC procedures for maintaining the test species.
- 3) Source of seawater used in reference, control and bioassay tests.
- 4) Data and statistical analysis procedures.
- 5) Limiting Permissible Concentration (LPC) calculations.
- 6) Description of model selected to evaluate dispersal of fish processing wastes at the ocean disposal site. Use of this model shall be approved by EPA Region IX and ASEPA before it is used by the permittee to evaluate the fish processing waste disposal plume.

3.3.5.3. DESCRIPTION OF SAMPLING PROCEDURES

QA/QC procedures and actual sampling procedures used during fish processing waste stream sampling and handling of the samples.

3.3.5.4. FINAL RESULTS, ANALYSIS OF DATA AND DISCUSSION

- 1) Complete bioassay data tables and summary bioassay tables shall be furnished in the report. All data tables should be typed or produced as a computer printout.
- 2) The permittee shall analyze the bioassay data and calculate the LPC of the material as defined at 40 C.F.R. § 227.27(a-b).
- 3) The permittee shall use the LPC in the approved plume model to determine the concentration of fish processing wastes disposed at the

designated ocean disposal site which complies with EPA's Ocean Dumping Criteria defined at 40 C.F.R. Parts 227 and 228.

3.3.5.5. REFERENCES

This list should include all references used in the field sampling program, laboratory protocols, LPC calculations, modelling analyses, and historical data used to evaluate the fish processing waste disposal operations at the designated ocean disposal site.

3.3.5.6. DETAILED QA/QC PLANS AND INFORMATION

The following topics should be addressed in the QA Plan:

- 1) QA objectives.
- 2) Organization, responsibilities and personnel qualifications, internal quality control checks.
- 3) Sampling and analytical procedures.
- 4) Equipment calibration and maintenance.
- 5) Sample custody and tracking.
- 6) documentation, data reduction, and reporting.
- 7) Data validation.
- 8) Performance and systems audits.
- 9) Corrective action.
- 10) Reports.

4. SPECIAL CONDITIONS - VESSEL OPERATIONS

Specifications for vessel operations are defined to limit dumping activities to the dump site identified in Special Condition 2.2 and to record all dumping activities. Fish processing wastes from the permittee's waste streams and fish processing wastes of other authorized permittees may be loaded into the disposal vessel together. If the waste transported to the disposal site is a combination of materials from the two plants, each permittee shall be liable for all permit conditions regarding disposal of the fish processing wastes. If the fish processing wastes disposed at the site are only generated at the VCS Samoa Packing plant, then VCS Samoa Packing shall be solely liable for all permit conditions pertaining to the disposal operation.

4.1. Posting of the Permit

This permit, or a true copy thereof, shall be placed in a conspicuous place on any vessel which is used for the transportation and dumping authorized by this permit. If the dumping vessel is an unmanned barge, the permit or true copy of the permit shall be transferred to the towing vessel.

4.2. Vessel Identification

Every vessel engaged in the transportation of wastes for ocean disposal shall have its name and number painted in letters and numbers at least fourteen (14) inches high on both sides of the vessel. The name and number shall be kept distinctly legible always, and a vessel without such markings shall not be used to transport or dump waste material.

4.3. Determination of the Disposal Location Within the Dump Site

On each disposal trip, the master of the disposal vessel shall determine the location of the disposal operation as follows:

- 4.3.1. The disposal vessel, as defined under WASTE TRANSPORTER on page 1 of this permit, shall proceed directly to the center of the disposal site at the location specified in Special Condition 2.2.
- 4.3.2. The master of the vessel shall observe the conditions at the dump site center, noting the vessel's position (latitude and longitude), wind direction and observed surface current direction.
- 4.3.3. After the conditions defined in Special Condition 4.3.2 have been recorded, the master of the disposal vessel shall proceed 1.1 nautical miles up current from the center of the disposal site and record the position of the disposal vessel (latitude and longitude). This position shall be the starting point for disposal operations for each disposal trip.
- 4.3.4. The master of the disposal vessel shall prepare a computerized navigational plot of the procedures defined in Special Conditions 4.3.1 to 4.3.4 and supply these to the permittee. The permittee shall submit these computerized navigational plots with the 6-month reports required under Special Condition 3.3.1. The navigational plot shall include:
 - 4.3.4.1. The disposal vessel's course during the entire dumping operation; and
 - 4.3.4.2. The times and location of entry and exit from the disposal site, position and time of arrival at the center of the disposal site, position and time of arrival at the location 1.1 nautical miles up current from the disposal site, beginning and ending of dumping

operations, and disposal vessel position plotted every 15 minutes while dumping.

- 4.3.5. The master of the disposal vessel shall sign and date each computerized navigational plot.
- 4.3.6. The master of the disposal vessel shall certify that disposal occurred in the manner required by the permit.
- 4.3.7. The procedures listed in Special Conditions 4.3.1 through 4.3.6 shall be repeated for each disposal trip.

4.4. Disposal Rate and Vessel Speed

- 4.4.1. The disposal vessel/barge shall discharge the material authorized by this permit beginning at the disposal location as determined by Special Condition 4.3.3. The vessel track shall be in a direction that is perpendicular to the current detected at the center of the disposal site as defined in Special Condition 2.2. Disposal shall occur in an oval shape along an axis at least 0.5 nautical miles on either side of the starting point determined in Special Condition 4.3.3. The entire disposal vessel track shall be within the disposal site boundaries.
 - 4.4.1.1. From June 1 through November 30, the disposal operation at the location plotted in Special Condition 4.3.3. shall be conducted at a rate of 140 gallons per minute per knot, not to exceed 1,400 gallons per minute at a maximum speed of 10 knots.
 - 4.4.1.2. From December 1 through May 31, the disposal operation at the location plotted in Special Condition 4.3.3. shall be conducted at a rate of 120 gallons per minute per knot, not to exceed 1,200 gallons per minute at a maximum speed of 10 knots.

4.5. Computerized Navigational System

The permittee shall use an onboard computerized electronic positioning system to fix the position of the disposal vessel accurately during all dumping operations. The computerized navigational system must be approved by EPA Region IX and the USCG Liaison Office (CGLO) Pago Pago. The permittee shall submit the description, specifications and example plots for the computerized navigational system at least 15 working days before the effective date of the permit. Disposal operations shall not begin until EPA Region IX and CGLO Pago Pago provide the permittee with written approval for the computerized navigation system.

4.6. Permitted Times for Disposal Operations

Dumping operations shall be restricted to daylight hours, unless an emergency exists as defined at 40 C.F.R. § 220.1(c)(4). ASEPA and CGLO Pago Pago shall be notified

immediately if an emergency exists and ocean disposal is required to protect human life at sea. No later than 5 working days after the emergency, the permittee and the waste transporter shall provide EPA Region IX, ASEPA and CGLO Pago Pago with a detailed written report on the emergency situation.

4.7. Reporting of the Ocean Dumping Vessel Operations

4.7.1. The waste transporter shall maintain and the permittee shall submit copies of a daily transportation and dumping log, including plots of all information requested in Special Conditions 4.3 and 4.7.2. Copies of the daily logs shall be sent to EPA Region IX, CGLO Pago Pago, and the ASEPA as part of the 6-month report.

4.7.2. The logbook shall contain the following information for each waste disposal trip:

- 4.7.2.1. Permit number, date and consecutive trip number;
- 4.7.2.2. Record of contact with ASEPA and CGLO before each trip to the ocean disposal site.
- 4.7.2.3. The time when loading of the vessel commences and ceases in Pago Pago Harbor;
- 4.7.2.4. The volume of each waste loaded into the disposal vessel from each fish cannery;
- 4.7.2.5. The time and navigational position that dumping commences and ceases;
- 4.7.2.6. A record of vessel speed and direction every 15 minutes during each dumping operation at the disposal site, and a computerized plot of the vessel's course defined in Special Condition 4.3;
- 4.7.2.7. Discharge rate from the disposal vessel.
- 4.7.2.8. Observe, note and plot the time and position of any floatable material;
- 4.7.2.9. Observe, note and plot the wind speed and direction every 30 minutes while dumping wastes at the designated disposal site;
- 4.7.2.10. Observe and note current direction at the beginning and end of the disposal trip, and the direction of the waste plume at the end of the disposal operation;

- 4.7.2.11. Observe, note and plot the presence of the previous disposal plume and any unusual occurrences during the disposal trip, or any other information relevant to the assessment of environmental impacts as a result of dumping activities; and
- 4.7.2.12. Any unusual occurrences noted under Special Condition 4.7.2.9 shall be highlighted in the report defined in Special Condition 3.3.1.

5. SPECIAL CONDITIONS - DUMP SITE MONITORING

The monitoring program for disposal of wastes in the ocean must document effects of disposed wastes on the receiving waters, biota, and beneficial uses of the receiving waters; compliance with EPA's Ocean Dumping Regulations; and determine compliance with permit terms and conditions. Revisions to the monitoring program may be made under the direction of EPA Region IX at any time during the permit term, in compliance with 40 C.F.R. §§ 223.2 and 223.3. This may include a change in the number of parameters to be monitored, the frequency of monitoring, the location of sample stations, or the number and size of samples to be collected.

Implementation of the disposal site monitoring program and all segments of the monitoring program specified in Special Condition 5 and Appendix A shall be the responsibility of the permittee.

5.1. Monitoring Program

The permittee shall conduct the monitoring program, defined in Appendix A, to determine the environmental impacts of ocean dumping of fish processing waste. If possible, monitoring cruises shall be scheduled within the first two weeks of each month to allow enough time for laboratory analysis and report writing in compliance with Special Condition 5.2. The permittee shall notify the ASEPA at least 48 hours before any scheduled monitoring activities.

5.2. Monitoring Reports

Monthly site monitoring reports shall be submitted to EPA Region IX, the ASEPA, NMFS, USFWS and WPRFMC with the 6-month reports as specified in Special Condition 3.3.2. The reports shall include: neatly compiled raw data for all sample analyses, quality assurance/quality control data, statistical analysis of sample variability between stations and within samples for each parameter, and a detailed discussion of the results.

5.3. Final Summary Report

- 5.3.1. A report shall be submitted to EPA Region IX, ASEPA, NMFS, USFWS and WPRFMC 60 days after the permit expires. This report shall summarize all of

the data collected during the waste material and dump site monitoring programs specified in this special permit.

5.3.2. At a minimum, the summary report shall contain the following sections:

- 5.3.2.1. Introduction (including a summary of previous ocean disposal activities),
- 5.3.2.2. Location of Sampling Sites,
- 5.3.2.3. Materials and Methods,
- 5.3.2.4. Results and Discussion (including comparisons and contrasts with previous MPRSA § 102 research and special permit data related to disposal of fish processing wastes off American Samoa),
- 5.3.2.5. Conclusions; and
- 5.3.2.6. References.

5.4. **Quality Assurance/Quality Control**

- 5.4.1. All appropriate phases of the monitoring, sampling, and laboratory analytical procedures shall comply with the EPA Region IX-specified protocols and references listed in Special Condition 3.1.2.
- 5.4.2. The qualifications of the on-site Principal Investigator in charge of the field monitoring operation at the dump site shall be submitted to EPA Region IX and the ASEPA for approval before the initial monitoring cruise. Notification of any change in this individual shall be submitted to EPA Region IX and ASEPA at least 7 days before the cruise is scheduled.

6. **SPECIAL CONDITIONS - NOTICE TO REGULATORY AGENCIES**

6.1. **Notice of Sailing to the U.S. Coast Guard Liaison Office and the American Samoa Environmental Protection Agency**

- 6.1.1. The waste transporter shall provide telephone notification of sailing to CGLO Pago Pago at 633-2299 and the ASEPA at 633-2304 during working hours (7:00 a.m. to 3:30 p.m.) no later than 24 hours before the estimated time of departure for the dump site defined in Special Condition 2.2. A record of contact with both agencies shall be reported with other information for each disposal trip.

- 6.1.2. The waste transporter shall immediately notify CGLO Pago Pago and the ASEPA upon any changes in the estimated time of departure greater than two hours.
- 6.1.3. Surveillance of activities at the dump site designated in Special Condition 2.2, may be accomplished by unannounced aerial overflights, a USCG shiprider and/or a ASEPA shiprider who will be on board the towing/conveyance vessel for the entire voyage. Within two hours after receipt of the initial notification the waste transporter will be advised whether or not a shiprider will be assigned to the waste transporter's disposal vessel.
- 6.1.4. The following information shall be provided to CGLO Pago Pago and the ASEPA in the notification of sailing defined above:
 - 6.1.4.1. The time of departure,
 - 6.1.4.2. Estimated time of arrival at the dump site,
 - 6.1.4.3. Estimated time of departure from the dump site, and
 - 6.1.4.4. Estimated time of return to port.

6.2. Reports and Correspondence

- 6.2.1. Two copies of all reports and related correspondence required by General Condition 1.10, Special Conditions 3.2, 3.3, 4.3, 4.5, 4.6, 4.7, 5.2, 5.3, 5.4, 6.1, and all other materials, including applications shall be submitted to EPA Region IX at the following address:

Office of Pacific Island and Native American Programs (E-4)
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, California 94105-3901
Telephone (415) 744-1974

- 6.2.2. Two copies of all reports required by General Condition 1.10 and Special Conditions 4.5, 4.6, 4.7 and 6.1 sent to the U.S. Coast Guard shall be submitted to the following address:

Commanding Officer
U.S. Coast Guard Liaison Office
P.O. Box 249
Pago Pago, American Samoa 96799
Telephone (684) 633-2299

- 6.2.3. Three copies of all reports required by General Condition 1.10 and Special Conditions 3.2, 3.3, 4.3, 4.5, 4.6, 4.7, 5.2, 5.3, 5.4 and 6.1 sent to the American

Samoa Environmental Protection Agency shall be submitted to the following address:

Director
American Samoa Environmental Protection Agency
Office of the Governor
Pago Pago, American Samoa 96799
Telephone (684) 633-2304

- 6.2.4. One copy of the all reports required by Special Conditions 3.3, 5.2 and 5.3 shall be sent to the USFWS, the NMFS and the WPRFMC at the following addresses:

Project Leader
Office of Environmental Services
U.S. Fish and Wildlife Service
300 Ala Moana Boulevard
P.O. Box 50167
Honolulu, Hawaii 96850

Western Pacific Program Officer
National Marine Fisheries Service
2570 Dole Street
Honolulu, Hawaii 96822-2396

Executive Director
Western Pacific Regional Fishery Management Council
1164 Bishop Street, Suite 1405
Honolulu, Hawaii 96813

Signed this _____ day of _____, 1993

For the Regional Administrator:

[To be signed when the Final Permit is prepared]

Harry Seraydarian, Director
Water Management Division
U.S. EPA, Region IX

APPENDIX A

SPECIAL OCEAN DUMPING PERMIT OD 93-02 OCEAN DUMP SITE MONITORING PLAN

7. MONITORING OF RECEIVING WATER

Monitoring of the receiving waters at the disposal site defined in Special Condition 2.2 shall be the responsibility of the permittee. Funding and cooperation for site monitoring may be accomplished through an agreement between permittee and other permittees authorized to use the disposal site. Any agreements negotiated between the permittee and other authorized permittees shall be the sole responsibility of the permittee named in this permit. EPA Region IX requires that a monitoring program be developed that complies with the special conditions defined below.

During each monitoring cruise, the fish processing waste plume from the disposal vessel shall be sampled by taking discrete water samples for the measurement of parameters listed in Special Condition 7.2.4. Results of the first 6-month monitoring report will be evaluated by EPA Region IX to determine whether portions of Special Conditions 7 and/or 8 will be revised. The evaluation will be based on documented sampling results and recommendations by the permittee(s).

7.1. Location of Water Sampling Stations

- 7.1.1. On each sampling cruise, the latitude and longitude of all sampling stations shall be determined and plotted using an acceptable navigational system.
- 7.1.2. The Principal Investigator shall ensure that discrete water samples are taken at the locations marked in Figure 1.

					Prevailing Surface Current Direction ←-----
5	4	3	2	1	
Leading Edge of Plume	1.0 nmi	0.5 nmi	0.25 nmi	Starting	

Figure 1. Orientation of Sample Stations (Top View) in the Middle of the Discharge Plume Visually Identified at the Time of Sampling.

- 7.1.3. The following stations, defined in Figure 1, shall be sampled on each sampling cruise:
 - 7.1.4.1. Station 1 shall be the starting point of the dumping operation as determined in Special Condition 4.3.

- 7.1.4.2. Station 2 shall be 0.25 nautical miles (nmi) down-current from Station 1.
 - 7.1.4.3. Station 3 shall be 0.5 nmi down-current from Station 1.
 - 7.1.4.4. Station 4 shall be 1.0 nmi down-current from Station 1.
 - 7.1.4.5. Station 5 shall be at the leading edge of the discharge plume, but within the plume.
- 7.1.4. The Principal Investigator shall ensure that each sampling station is positioned as close as possible to the middle of the discharge plume according to his/her best professional judgment.

7.2. Water Column Characteristics to Be Measured

- 7.2.1. Discrete water samples at Stations 1, 2, 3, 4, and 5 shall be taken at depths of 1, 3, and 10 meters from the surface at the middle of the plume visually identified by the Principal Investigator.
- 7.2.2. Surface water conditions shall be recorded at all stations including:
 - 7.2.2.1. Wind speed and direction;
 - 7.2.2.2. Current direction and wave height; and
 - 7.2.2.3. Observations of waste, color (e.g., Forel-Ule color scale), odor, floating materials, grease, oil, scum, and foam.
- 7.2.3. Water samples shall be obtained using a self-closing 3-liter water sample device at each depth listed in 7.2.1.
- 7.2.4. Water column parameters analyzed from discrete samples taken at the depths listed in 7.2.1 shall include:

Table 4. Physical and Chemical Parameters to be Analyzed from Water Samples Taken at the Ocean Disposal Site.

Parameter ^a	Method Detection Limit
Total Suspended Solids	10.0 mg/L
Total Volatile Suspended Solids	10.0 mg/L
Oil and Grease	10.0 mg/L

Parameter ^a	Method Detection Limit
Total Phosphorus	1.0 mg/L
Total Nitrogen	1.0 mg/L
Ammonia	1.0 mg/L
pH	0.1 pH units

a = Samples should be acidified to pH <2 with sulfuric acid and refrigerated at 4°C until analysis.

- 7.2.5. Temperature measurements shall be taken at depths of 1, 3, and 10 meters at the starting point of the disposal operation, as defined in Special Condition 4.3.3.

7.3. Frequency of Sampling

- 7.3.1. Water samples shall be collected when dumping operations occur. Each station listed under Special Condition 7.1 shall be sampled once each month. These samples shall be used to characterize the receiving waters at the disposal site.
- 7.3.2. Control samples shall be taken at Station 1 before dumping activities.
- 7.3.3. Station 1 shall be sampled at a point within the plume immediately after discharge operations cease.
- 7.3.4. Stations 2 through 5 shall be sampled consecutively at distances indicated in Special Condition 7.1.4 to allow efficient sampling of the discharge plume. The time between each sample and the sampling location, beginning with the control sample and ending with the sample collected at the leading edge of the plume, shall be recorded.

7.4. Water Quality Criteria and Standards

- 7.4.1. The LPC of the liquid phase of the waste material shall not be exceeded at the disposal site boundary four hours after disposal operations cease. The LPC is that concentration of the material which, after allowance for initial mixing as defined at 40 C.F.R. § 227.29, does not exceed applicable American Samoa Oceanic Water Quality Standards (see Table 1). EPA Region IX and the ASEPA will evaluate the LPC based on EPA's Ocean Dumping Regulations and the concentration of parameters measured at the stations sampled during the tenure of this permit.

8. **MONITORING OF BIOLOGICAL COMMUNITIES**

8.1. **Pelagic Resources**

8.1.1. All sightings of fish, sea turtles, sea birds, or cetaceans near the disposal site shall be recorded including:

- 8.1.1.1. Time, location and bearing;
- 8.1.1.2. Species name(s); and
- 8.1.1.3. Approximate number of individuals.

APPENDIX B - REPORT FORM 1

Monthly Volumes of VCS Samoa Packing Fish Processing Wastes Loaded Aboard the Disposal Vessel

Month 19

OD 93-02	DAF Sludge (gallons/day)	Precooker Water (gallons/day)	Press Water (gallons/day)	Total/Day (gallons/day)
Permit Limits	60,000	100,000	40,000	200,000

[illegible]

Disposal Trip Date	DAF Sludge (gallons/day)		Precooker Water (gallons/day)		Press Water (gallons/day)		Total/Day (gallons/day)	
Monthly Totals								

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred. The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum sulfate: _____ pounds/month

Coagulant polymer: _____ pounds/month

APPENDIX B - REPORT FORM 2

Data Form for 6-Month Report on Waste Stream Analyses for VCS Samoa Packing MPRSA § 102 Permit #OD 93-02

Reporting Period: From _____ 19__ To _____ 19__

VCS Samoa Packing - Dissolved Air Flotation (DAF) Sludge

Month & Year	Total Solids (mg/L)		Total Volatile Solids (mg/L)		5-Day Biological Oxygen Demand (mg/L)		Oil and Grease (mg/L)		Total Phosphorus (mg/L)		Total Nitrogen (mg/L)		Ammonia (mg/L)		pH (pH units)		Density (g/mL)	
OD 93-02 Permit Limits	461,790		455,560		349,350		395,700		3,790		21,820		3,470		4.8 to 7.0		0.86 to 1.05	

NOTE: An asterisk (*) next to the waste concentration signifies that a violation of the permit limit has occurred.

VCS Samoa Packing - Precooker Water

Month & Year	Total Solids (mg/L)		Total Volatile Solids (mg/L)		5-Day Biological Oxygen Demand (mg/L)		Oil and Grease (mg/L)		Total Phosphorus (mg/L)		Total Nitrogen (mg/L)		Ammonia (mg/L)		pH (pH units)		Density (g/mL)	
OD 93-02 Permit Limits	115,180		84,450		64,650		11,180		1,850		12,830		410		5.5 to 6.6		0.95 to 1.06	

NOTE: An asterisk (*) next to the waste concentration signifies that a violation of the permit limit has occurred.

Data Form for 6-Month Report on Waste Stream Analyses for VCS Samoa Packing MPRSA § 102 Permit #OD 93-02

Reporting Period: From _____ 19__ To _____ 19__

VCS Samoa Packing - Press Water

Month & Year	Total Solids (mg/L)		Total Volatile Solids (mg/L)		5-Day Biological Oxygen Demand (mg/L)		Oil and Grease (mg/L)		Total Phosphorus (mg/L)		Total Nitrogen (mg/L)		Ammonia (mg/L)		pH (pH units)		Density (g/mL)	
OD 93-02 Permit Limits	381,510		409,310		365,550		165,860		2,950		35,100		830		5.5 to 6.8		0.96 to 1.06	

NOTE: An asterisk (*) next to the waste concentration signifies that a violation of the permit limit has occurred.

VCS Samoa Packing - Summary of Monthly Volumes of Fish Processing Waste Disposed at the Ocean Site and the Amount of Aluminum Sulfate and Coagulant Polymer Added to the Waste Streams.

Month & Year	DAF Sludge (gallons/month)	Precooker Water (gallons/month)	Press Water (gallons/month)	Total Fish Processing Waste (gallons/month)	Aluminum sulfate (pounds/month)	Coagulant polymer (pounds/month)
6-Month Totals						

NOTICE OF APPLICATION AND PROPOSED ACTION
U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) REGION IX
75 HAWTHORNE STREET
SAN FRANCISCO, CALIFORNIA 94105-3901

Applications for Permits to Transport
and Dump Materials into Ocean Waters

Public Notice for Ocean Dumping Permit Numbers
OD 93-01 and OD 93-02

Pursuant to Section 102 of the Marine Protection, Research and Sanctuaries Act (MPRSA) of 1972, as amended (33 U.S.C. § 1401 et seq.) and 40 C.F.R. § 222.3 of EPA's Ocean Dumping Regulations (42 Fed. Reg. 2462, Jan. 11, 1977), notice is hereby given by this office of complete applications for permits to transport and dispose fish processing wastes into ocean waters of Tutuila Island, American Samoa. The permit applicants are: STARKIST SEAFOOD COMPANY, INC. (an affiliate of H.J. HEINZ COMPANY), 180 East Ocean Blvd., Long Beach, CA 90802-4797 and VAN CAMP SEAFOOD COMPANY, INC., 4510 Executive Dr., Suite 300, San Diego, CA 92121-3029, for their respective subsidiary companies: STARKIST SAMOA, INC., P.O. Box 368, Pago Pago, American Samoa 96799 and VCS SAMOA PACKING COMPANY, INC., P.O. Box 957, Pago Pago, American Samoa 96799.

EPA has made a tentative decision to issue special ocean dumping permits to StarKist Samoa and VCS Samoa Packing Company for a three-year period. The Agency has determined that these permits are required for ocean disposal of fish processing wastes produced at canneries in Pago Pago, American Samoa. The fish processing wastes to be disposed from StarKist Samoa are: dissolved air flotation (DAF) sludge, cooker juice and press liquor. The fish processing wastes to be disposed from VCS Samoa Packing are: DAF sludge, precooker water and press water. Based on dilution levels expected at the designated ocean disposal site, the fish processing wastes are not expected to cause significant long-term impacts to oceanic water quality, marine ecosystems or human health.

The fish processing wastes will be disposed at an ocean disposal site 5.45 nautical miles southeast of Tutuila Island. The ocean disposal site has center coordinates of 14° 24.00' South latitude by 170° 38.20' West longitude and a radius of 1.5 nautical miles. The water depth at the disposal site is about 9,000 feet. This site was designated for use on February 6, 1990 (55 Fed. Reg. 3948) and was used by the two American Samoa canneries for disposal of fish processing wastes under MPRSA § 102 special permits OD 90-01 (StarKist Samoa) and OD 90-02 (VCS Samoa Packing Company) for three years. No significant long-term environmental impacts were found at the site during site monitoring activities.

During the term of special permits OD 93-01 and OD 93-02, the permittees must continue monitoring programs for fish processing waste streams, disposal vessel navigation and monthly ocean disposal site monitoring. Information compiled during the term of these permits and any previous information about ocean disposal of fish processing wastes off

American Samoa will be used by EPA Region IX to determine compliance with EPA's Ocean Dumping Regulations defined at 40 C.F.R. Parts 220 through 228 and the Special MPRSA § 102 permits.

SUMMARY OF INFORMATION AND TENTATIVE DETERMINATION

DAF sludge is waste material that remains after treatment of fish processing wastes to remove grease and suspended particulate matter. DAF sludge also contains aluminum sulfate or alum (an odor reducing chemical) and coagulant polymers (to coagulate suspended matter) that are added during the waste treatment process. Cooker juice or precooker water is a combination of stick water and other process water that collects under the steam precoolers at the fish plants. Press liquor or press water is waste water produced at the fish meal plants when fish scrap is cooked and pressed before being dried to produce livestock food meal.

There are no changes in the volumes of fish processing wastes proposed for disposal by either applicant. The proposed disposal volumes are:

Fish Processing Waste	StarKist Samoa (gallons/day)	VCS Samoa Packing (gallons/day)	Total Volume (gallons/day)
DAF Sludge	60,000	60,000	120,000
Cooker Juice	100,000	0	100,000
Precooker Water	0	100,000	100,000
Press Liquor	40,000	0	40,000
Press Water	0	40,000	40,000
Daily Maximum	200,000	200,000	400,000

Based on EPA Region IX's review of data collected under the previous MPRSA § 102 special permits, the following changes are proposed for the new permits: 1) new permit limits have been calculated which are mostly lower than the previous permit limits, 2) analysis of heavy metals in the waste streams has been deleted because data showed low concentrations of all analytes, 3) analysis of petroleum hydrocarbons in the waste streams has been deleted because fish oils interfere with this analysis, 4) a new disposal vessel (the FV TASMAN SEA) is authorized and a new set of bioassays and plume modeling are required to confirm that disposal operations are similar to the previous permitted actions, 5) a computerized navigation system is required to plot the course of the vessel accurately during disposal operations, and 6) new reporting forms have been developed to aid in reporting permit monitoring information. All other general and special conditions are similar to existing conditions in MPRSA § 102 special permits OD 90-01 and OD 90-02.

INITIATION OF HEARINGS AND PUBLIC COMMENTS

Within 30 days of the date of this notice, any person may request a public hearing to consider the issuance of, or the conditions to be imposed upon, these permits. Any such request for a public hearing must: 1) be in writing, 2) identify the person requesting the hearing, 3) state any objections to the issuance of, or to the conditions to be imposed upon, these permits, and 4) state the issues which are proposed to be considered at the hearing. Under 40 C.F.R § 222.4, the Regional Administrator's determination on whether to hold a public hearing shall be based on whether the request presents genuine issues of policy or facts amenable to resolution by public hearing.

Comments on the tentative determination and requests for public hearings may be submitted in writing within 30 days of the date of publication of this notice to: Ms. Janet Y. Hashimoto, Chief, Marine Protection Section (W-7-1), U.S. Environmental Protection Agency, Region IX, 75 Hawthorne Street, San Francisco, CA 94105-3901, telephone (415) 744-1156.

The Administrative Record, which includes the applications, the draft permits, the fact sheet describing the permits and changes from special permits OD 90-01 and OD 90-02, is available for public review Monday to Friday from 9:00 a.m. to 4:00 p.m. at the: EPA Region IX Library, 13th Floor, 75 Hawthorne Street, San Francisco, CA, (415) 744-1510; EPA Pacific Island Contact Office, 300 Ala Moana Boulevard, Room 5124, Honolulu, HI, (808) 541-2710; and American Samoa EPA, Executive Office Building, Office of the Governor, Pago Pago, American Samoa, (684) 633-2304.

FACT SHEET
SPECIAL OCEAN DUMPING PERMITS
STARKIST SAMOA (OD 93-01) AND VCS SAMOA PACKING COMPANY (OD 93-02)
LOCATED IN PAGO PAGO, AMERICAN SAMOA

I. SUMMARY

The U.S. Environmental Protection Agency (EPA) Region IX has received complete applications from StarKist Samoa, Incorporated and VCS Samoa Packing Company, Incorporated for continued ocean disposal of fish processing wastes off Pago Pago, American Samoa. Disposal of fish processing wastes was permitted under two previous Marine Protection Research and Sanctuaries Act (MPRSA) § 102 Special Permits, OD 90-01 (StarKist Samoa) and OD 90-02 (VCS Samoa Packing). These permits began on July 31, 1990 and are effective until July 30, 1993. Disposal operations occurred at a designated site (55 FR 3948, February 6, 1990) located 5.45 nautical miles from land (14° 24.00' South latitude by 170° 38.20' West longitude) with a radius of 1.5 nautical miles in about 1,500 fathoms of water.

The Regional Administrator has tentatively decided to issue special ocean dumping permits (OD 93-01 and OD 93-02, respectively) to the applicants for ocean disposal of fish processing wastes over a three-year period. This decision has been made according to EPA's authority established in Title I of the Marine Protection, Research and Sanctuaries Act of 1972 (MPRSA) (33 U.S.C. section 1401 et seq.). Section 104B(k)(3)(B) of MPRSA contains an exclusion from the ban on disposal of industrial waste for tuna canneries in American Samoa.

The conditions and monitoring activities defined in OD 93-01 and OD 93-02 are similar to those in previous special and research ocean dumping permits. However, several changes have been made to: 1) permitted waste concentrations, 2) waste stream monitoring, 3) reporting requirements, and 4) disposal vessel operations. The changes are based on evaluation of waste stream data, confirmation of past toxicity tests and plume modeling and new navigation requirements for the disposal vessel.

EPA Region IX has tentatively decided to proceed with issuance of these special permits. Comments on our proposed action will be requested from the permit applicants, the American Samoa Government, Federal agencies, and the public as required under EPA's Ocean Dumping Regulations at 40 C.F.R Parts 220 through 228. Draft special permits and supporting documents are available for public review at the U.S. EPA's Regional Office in the Library on the 13th Floor at 75 Hawthorne Street, San Francisco, California; the U.S. EPA's Pacific Island Contact Office, 300 Ala Moana Boulevard, Honolulu, Hawaii; and the American Samoa Environmental Protection Agency, Executive Office Building, Office of the Governor, Pago Pago, American Samoa. These documents define the principal facts and significant legal, administrative and policy questions considered in the development of the special permits.

II. TENTATIVE DECISION

On December 8, 1992, StarKist Samoa and VCS Samoa Packing Company applied for ocean dumping permits to dispose of their fish cannery wastes at a designated ocean disposal site near Pago Pago, American Samoa. The designated site, used for the past 3 years by both canneries, is located 5.45 nautical miles from land (14° 24.00' South latitude by 170° 38.20' West longitude) with a radius of 1.5 nautical miles in 1,502 fathoms of water [40 C.F.R. § 228.12(b)(74)]. EPA Region IX is planning to grant their applications by issuing a special ocean dumping permit to each cannery which will last for three years.

Current information indicates that disposal of fish processing wastes at the designated site complies with EPA's Ocean Dumping Regulations at 40 C.F.R. Parts 227 and 228. Information obtained during the term of the special permits will be used to evaluate whether the disposal of fish processing wastes continues to comply with criteria defined in EPA's Ocean Dumping Regulations. The permittees must conduct a site monitoring program, including field and laboratory analyses. Results of the monitoring program will be used to document the extent of effects at the ocean disposal site and whether the dumping continues to comply with EPA's Ocean Dumping Regulations.

The proposed dumping during the term of the special permits is expected to have minimal impacts on human health and/or the marine environment, as demonstrated by the monitoring results of the previous special and research ocean dumping permits. The primary environmental impact of the proposed discharges would be short-term increases in turbidity, inorganic nutrients, oil and grease, and ammonia during the dumping events.

Past monitoring studies on the disposal of fish processing wastes off American Samoa show that water quality parameters return to ambient conditions at the boundary of the disposal site following the four hour period of initial mixing (40 C.F.R. § 227.29). To be certain that American Samoa Water Quality Standards would not be violated by the disposal of fish processing wastes, the center of the disposal site was designated 5.45 nautical miles offshore, and restrictive disposal rates and limitations on the waste material constituents are included in the special ocean dumping permits.

III. TERMS OF THE PERMIT

Special ocean dumping permits OD 93-01 and OD 93-02 are similar to OD 90-01 and OD 90-02, except those changes outlined above. The permittees have been disposing of fish cannery wastes, monitoring the waste streams and the disposal site according to the specifications of the past special and research permits.

A. Volumes of Waste Material Proposed for Ocean Disposal

Table 1. Volumes of Fish Processing Waste Authorize for Daily Disposal (see Special Condition 2.3 in both permits).

Fish Processing Waste	StarKist Samoa (gallons/day)	VCS Samoa Packing (gallons/day)	Total Volume (gallons/day)
DAF Sludge	60,000	60,000	120,000
Cooker Juice	100,000	0	100,000
Precooker Water	0	100,000	100,000
Press Liquor	40,000	0	40,000
Press Water	0	40,000	40,000
Daily Maximum	200,000	200,000	400,000

B. Waste Material Limitations in the Proposed Permits (see Special Condition 2.4 in both permits).

Table 2. Fish Processing Waste Limits for the StarKist Samoa's Permit #OD 93-01.

Physical or Chemical Parameter (units)^a	DAF Sludge	Cooker Juice	Press Liquor
Total Solids (mg/L)	163,430	114,180	327,870
Total Volatile Solids (mg/L)	136,180	63,400	292,280
5-Day BOD (mg/L)	232,320	185,150	310,790
Oil and Grease (mg/L)	64,100	11,810	112,080
Total Phosphorus (mg/L)	1,640	940	3,160
Total Nitrogen (mg/L)	7,020	7,560	20,360
Ammonia (mg/L)	1,830	690	1,390
pH (pH units)	5.3 to 6.5	5.9 to 6.3	5.8 to 6.5
Density (g/mL)	0.97 to 1.06	0.98 to 1.06	0.99 to 1.08

a = All calculated values were rounded to the nearest 10, except the density and pH ranges.

Table 3. Fish Processing Waste Limits for the VCS Samoa Packing's Permit #OD 93-02.

Physical or Chemical Parameter (units)_a	DAF Sludge	Precooker Water	Press Water
Total Solids (mg/L)	461,790	115,180	381,510
Total Volatile Solids (mg/L)	455,560	84,450	409,310
5-Day BOD (mg/L)	349,350	64,650	365,550
Oil and Grease (mg/L)	395,700	11,180	165,860
Total Phosphorus (mg/L)	3,790	1,850	2,950
Total Nitrogen (mg/L)	21,820	12,830	35,100
Ammonia (mg/L)	3,470	410	830
pH (pH units)	4.8 to 7.0	5.5 to 6.6	5.5 to 6.8
Density (g/mL)	0.86 to 1.05	0.95 to 1.06	0.96 to 1.06

a = All calculated values were rounded to the nearest 10, except the density and pH ranges.

C. Calculation of Permit Limits

1. Data from the previous special ocean dumping permit issued to each cannery were used to calculate all permit limits. The data for each cannery were evaluated separately.
2. The following calculations were made for each set of data using the LOTUS-123 spreadsheet program, version 2.2: maximum and minimum levels; mean, standard deviation and the number of data points.
3. Any data values greater than or less than the mean plus or minus 3 standard deviations, were considered to be outliers. Outlier data points were not used in the permit limit calculations.
4. All procedures for calculating permit limits are discussed in Sections 3.1.1 and 3.1.2 (pages 3-1 to 3-9) of EPA's Guidance Document for Ocean Dumping Permit (January 30, 1988).
 - a. The mean and standard deviation of each physical or chemical parameter were calculated by the following equations:

$$\text{Mean}_x = \frac{\sum x_i}{N}$$

x_i = each value for the i th constituent

N = the number of data points reported

$$\text{Standard Deviation}_x = \frac{\sum \{x_i - \text{Mean}_x\}^2}{N - 1}$$

- b. The permit limit (Upper Limit) was determined by taking the mean and adding the product of a constant multiplied by the standard deviation.

$$\text{Upper Limit}_x = \text{Mean}_x + (k \times \text{Standard Deviation}_x)$$

k = a constant from Table 3-2 in EPA's 1988 Guidance Document.

- c. The constant (k) is based on N and two variables, probability (Γ) and proportion (P), used to compute permit limits. In this case, all limits were calculated with $\gamma = 0.95$ and $P = 0.95$.

IV. FACTORS CONSIDERED IN REACHING THE PERMIT DECISIONS

A. Overview of Disposal Operations

The two fish canneries in American Samoa, StarKist Samoa and VCS Samoa Packing Company, propose to dispose of fish processing wastes at an ocean dump site centered approximately 5.45 nautical miles south of Tutuila Island in 1,502 fathoms of water. The center coordinates of the site are: 14° 24.00' South latitude by 170° 38.20' West longitude. The fish processing wastes will be transported to the upcurrent quadrant of the site and discharged at a rate less than or equal to 1,400 gallons per minute, depending on the season, at a maximum speed of 10 knots (see Special Condition 4.4.1). The disposal vessel will discharge the fish processing wastes along an oval-shaped track with the center axis of the oval perpendicular to the current direction. All disposal will occur within the boundary of the designated ocean disposal site.

On each trip, the master of the disposal vessel will document current direction at the center of the disposal site. He will then proceed to a point 1.1 nautical miles upcurrent of the prevailing surface current to discharge the waste. The fish processing wastes may be discharged only after this procedure has been conducted. This will ensure that the waste plume has an adequate area for mixing within the disposal site boundary.

Receiving waters at the disposal site are outside the American Samoa territorial sea. Though the ocean disposal site is outside these waters, the MPRSA § 102 special permits are designed to comply with oceanic water quality standards defined in § 24.0207(g)(1-7) of the American Samoa Water Quality Standards (see Table 1 under General Condition 1.5). This

will ensure that oceanic waters inside American Samoa's territorial sea are not affected by the ocean disposal operations. Four hours after dumping has ceased, concentrations of the fish processing wastes must reach ambient levels (40 C.F.R. section 227.29) at the disposal site boundary. Disposal site monitoring requirements are contained in the special permits. EPA Region IX will evaluate potential impacts to water quality based on the site monitoring reports.

B. Changes from the Previous MPRSA § 102 Special Permits

1. A new ocean disposal vessel will be authorized for the 1993 special permits (see page 1 of each permit). The MV ASTRO will be replaced by the FV TASMAN SEA (formerly the FV BLUE NORTH). The new disposal vessel is owned by Blue North Fisheries, Inc., at 1130 N.W. 45th Street, Seattle, WA 98107-4626.
2. EPA Region IX reviewed 29-30 months of waste stream monitoring data submitted by each permittee. The characteristics of the waste streams at the two canneries are entirely different; therefore, separate permits were necessary. Appendix A of this fact sheet contains the tables used to calculate the new permit limits for each permittee's waste stream defined in Section III.B above. The last part of each table shows the numerical changes from the previous special permits compared to the proposed special permits.
 - a. In general, most of the limits for StarKist Samoa's waste stream were reduced (see Appendix A, Tables 1-3). Some limits were reduced as much as 90%. The only exceptions are: Cooker Juice oil and grease (+145%), Press Liquor total solids (+21%), Press Liquor total phosphorus (+59%), and Press Liquor oil and grease (+80%). These increases in the waste stream limits are required because earlier waste stream data do not reflect the present waste stream characteristics.
 - b. Similarly, most of the limits for VCS Samoa Packing's waste streams were reduced (see Appendix A, Tables 4-6). Some limits were reduced as much as 85%. The only exceptions are: DAF Sludge total nitrogen (+46%), DAF Sludge oil and grease (+40%), DAF Sludge total volatile solids (+48%), DAF Sludge ammonia (+35%), Precooker Water 5-day biological oxygen demand (+7%), Press Water total nitrogen (+10%) and Press Water total volatile solids (+6%). These increases in the waste stream limits are required because earlier waste stream data did not properly characterize these waste streams.
3. Reports analyzing metal and petroleum hydrocarbon concentrations in the waste streams were submitted by StarKist Samoa (July 29, 1993) and VCS Samoa Packing (July 31, 1993). These reports were required under Special Condition 3.3.5 in the previous MPRSA § 102 special permits. EPA Region IX reviewed the permittees' analyses of metal and petroleum hydrocarbon concentrations and the permittees' explanation of the sources. The reports document low concentrations of metals and petroleum hydrocarbons for each waste stream.

EPA Region IX reviewed data submitted with the last 29-30 months of reports and we found low concentrations of metals in the waste streams. Table 4 below displays the mean and standard deviation for the concentrations listed in the tables of Appendix A. High values of aluminum in the DAF Sludge are expected because aluminum sulfate is added as an odor reducing agent. The high values for petroleum hydrocarbons are most likely a result of interference in the analysis by high concentrations of fish oils.

Table 4. Concentrations of Metals and Total Recoverable Petroleum Hydrocarbons in StarKist Samoa (SK) and VCS Samoa Packing (VCS) Waste Streams Reported for MPRSA § 102 Permits OD 90-01 and OD 90-02.

DAF	Al (mg/L)	Cr (mg/L)	Ni (mg/L)	Cu (mg/L)	Pb (mg/L)	Cd (mg/L)	Hg (mg/L)	TRPH (mg/L)
SK Mean	473.00	0.88	0.74	4.70	0.95	0.24	0.009	1924.00
SK SD	336.00	0.42	0.40	2.78	0.74	0.13	0.006	841.00
VCS Mean	86.00	2.10	2.06	6.08	2.81	0.86	0.016	13393.00
VCS SD	59.00	1.14	1.71	3.26	1.96	0.61	0.010	9339.00
CJ - PC								
SK Mean	1.12	0.12	0.26	0.37	0.17	0.20	0.006	64.00
SK SD	0.90	0.06	0.22	0.11	0.14	0.06	0.002	26.00
VCS Mean	1.02	0.13	0.25	0.29	0.23	0.19	0.004	119.00
VCS SD	0.67	0.05	0.21	0.13	0.24	0.10	0.002	94.00
PL - PW								
SK Mean	1.81	0.15	0.32	.090	0.23	0.49	0.017	961.00
SK SD	1.12	0.07	0.24	0.37	0.22	0.22	0.008	531.00
VCS Mean	0.95	0.17	0.29	0.49	0.28	0.21	0.006	2471.00
VCS SD	0.57	0.10	0.24	0.18	0.24	0.09	0.002	2478.00

DAF = Dissolved Air Flotation Sludge

CJ - PC = StarKist Samoa Cooker Juice and VCS Samoa Packing Precooker Water

PL - PW = StarKist Samoa Press Liquor and VCS Samoa Packing Press Water

SD = Standard Deviation

EPA Region IX determined that these levels do not pose a significant risk to the marine environment or human health based on the design of disposal operations and dilution at the disposal site. Therefore, requirements to analyze metals and petroleum hydrocarbons in the permittees' waste streams have been deleted from the new permits.

4. Two new data reporting forms were developed for the 1993 ocean dumping permits (see Appendix B of each permit). These forms, and data submitted on a computer diskette compatible with EPA Region IX's computer system, will streamline the 6-month data reporting requirements.
5. The canneries must conduct confirmatory suspended particulate phase bioassays within one year of the effective date of the permit (see Special Condition 3.3.5). These tests are required because the nature of the fish processing wastes has changed from the initial characterization of the waste streams conducted more than 5 years ago. Results of the new bioassays will be used to calculate new Limiting Permissible Concentration (LPC) values. The new LPC values will be used to rerun the plume model used to predict dilution and discharge rates at the ocean disposal site. A report will be prepared by each permittee discussing the test procedures and results of the bioassay tests and new model runs. EPA Region IX will review the report to determine whether any changes in the ocean dumping permits are necessary.
6. A computerized navigation system is specified in Special Condition 4.3.4 and 4.5 to simplify plotting of the disposal vessel's track once inside the ocean disposal site and during disposal operations. This system will provide a continuous plot of the disposal vessel's track and a hard copy of each plot will be sent with the 6-month report.

V. EPA'S AUTHORITY TO ISSUE OCEAN DUMPING PERMITS

- A. EPA's authority to issue special ocean dumping permits is defined under Title I of MPRSA and at 40 C.F.R. § 220.4. The authority to issue special permits was delegated to the Regional Administrator on January 11, 1977 (42 FR 2462). The Regional Administrator's authority to issue special permits was redelegated to the EPA Region IX Water Division Director on January 25, 1982 (EPA Region IX Order R1250.5A).
- B. Section 102 of MPRSA authorizes EPA to issue permits for ocean dumping. The Agency must determine that the proposed dumping will not unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities. In addition to these requirements, EPA must evaluate each permit application to determine whether the dumping will comply with the criteria at 40 C.F.R. Part 227 and whether the designated site complies with the criteria at 40 C.F.R. Part 228.
- C. The American Samoa Fish Processing Waste disposal site was designated, through the publication of a Final Rule, on February 6, 1990 (55 FR 3948) at 40 C.F.R. § 228.12(b)(74). The designation process consisted of publication of an environmental impact statement (EIS) according to EPA's voluntary EIS policy. The draft EIS for this project was published on September 16, 1988 (53 FR 38118) and a final EIS was published on March 3, 1989 (54 FR 9083). The final rule designating the ocean disposal site was published on February 6, 1990 (55 FR 3948).

- D. EPA Region IX will periodically evaluate the special permits to determine whether the fish canneries disposal operations comply with the special permit conditions. If unacceptable impacts are detected at the site (40 C.F.R. section 228.10), or significant permit violations are found, EPA will determine whether use of the site should be restricted (40 C.F.R. sections 228.10 and 228.11), or whether enforcement actions should be initiated under MPRSA § 105.

VI. ADMINISTRATIVE PROCEDURES AND THE PUBLIC HEARING PROCESS

- A. The processing of an ocean dumping permit consists of the following actions:

1. EPA receives a completed application (40 C.F.R. § 221).
2. EPA issues a tentative decision whether to grant or deny the special permit (40 C.F.R. § 222.2). A draft permit is the means by which EPA documents the intent to grant an ocean dumping permit.
3. A public notice is issued to announce EPA's intent to issue the permit (40 C.F.R. § 222.3). The notice contains the following elements: summary, tentative determination, factors considered in reaching the tentative determination, hearing process, and the location of all information on the draft permit. Public notices describing EPA's intent to issue a permit are published in a daily newspaper in closest proximity to the proposed dump site and in a daily newspaper in the city in which EPA's Regional Office is located.
4. Before a final decision can be made on the special permit, formal consultation must be documented with the following agencies: American Samoa Government, U.S. Army Corps of Engineers, U.S. Coast Guard, National Marine Fisheries Service, U.S. Fish and Wildlife Service and the Shellfish Sanitation Branch of the Food and Drug Administration.

B. Initiation of a Public Hearing

1. Within 30 days of the date of the public notice, any person may request a public hearing to consider issuance or denial of the special permit or conditions to be imposed upon this permit. Any request for a hearing must be made in writing; must identify the person requesting the hearing; and must clearly state any objections to issuance or denial of the permit or to the conditions to be imposed upon the permit, and the issues to be considered at the hearing. According to 40 C.F.R. § 222.4, the Regional Administrator may schedule a hearing, at his discretion, based on genuine issues presented in the written request.
2. Upon receipt of a written request presenting genuine issues amenable to resolution by a public hearing, the Regional Administrator may determine a time and place for the hearing and publish a notice of the hearing. All interested parties will be invited to express their views on the proposed

issuance or denial of the permit at the hearing if one is held. If a request for a public hearing is made within 30 days of the date of this notice and does not meet the above criteria, the Regional Administrator must advise the requesting person of his decision to deny the hearing in writing and proceed to rule on the application.

3. Following adjournment of the public hearing, the Presiding Officer, appointed by the Regional Administrator, prepares written recommendations about the issuance, denial or conditions to be imposed upon the permit after full consideration of the views and arguments expressed at the hearing (40 C.F.R. §§ 222.6 through 222.8). The Presiding Officer's recommendations and the record of the hearing are forwarded to the Regional Administrator within 30 days of the hearing.
4. The Regional Administrator makes a determination whether to issue, deny or impose conditions on the permit within 30 days of receipt of the Presiding Officer's recommendations. He must give written notice of the decision to any person appearing at the public hearing (40 C.F.R. § 222.9).
5. A final permit becomes effective 10 days after issuance, if no requests for an adjudicatory hearing are received. Requests for an adjudicatory hearing may be made to the Regional Administrator within 10 days of receipt of the notice to issue or deny the permit (40 C.F.R. § 222.10 and § 222.11). An appeal of the Regional Administrator's adjudicatory hearing decision may be made in writing to the Administrator of EPA within 10 days following receipt of the Regional Administrator's determination on the need for an adjudicatory hearing (40 C.F.R. § 222.12).

VII. ADDITIONAL INFORMATION

For further information on the special permits, requests for copies of the permits or questions pertaining to MPRSA regulations, please contact either of the following people at EPA Region IX:

Janet Y. Hashimoto, Chief
Marine Protection Section (W-7-1)
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, California 94105-3901
(415) 744-1156

Patricia Young
Office of Pacific Island and Native American Programs (E-4)
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, California 94105-3901
(415) 744-1594

APPENDIX A

FACT SHEET

**WASTE STREAM DATA
FROM STARKIST SAMOA AND VCS SAMOA PACKING**

Table 1. StarKist Samoa DAF Sludge Data from August 1990 to January 1993 under OD 90-01.

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
AUG 1990	113,000	172,000	1,018	*21,000	39,000	5.55	87,000	1.04	1,800
SEP 1990	117,000	135,000	1,468	6,600	32,000	5.66	90,000	1.02	*5,485
OCT 1990	44,000	121,500	527	2,100	13,000	6.07	23,000	1.03	*3,200
NOV 1990	60,000	73,500	1,513	500	24,000	5.75	34,000	1.02	247
DEC 1990	118,000	62,000	950	2,567	59,000	6.39	88,000	1.00	2,120
JAN 1991	176,500	136,500	610	3,983	48,000	6.37	150,500	1.01	1,543
FEB 1991	52,000	28,500	285	2,900	8,500	5.85	30,000	1.01	1,800
MAR 1991	121,000	175,500	1,370	4,400	25,000	5.57	93,000	1.03	670
APR 1991	61,000	242,750	547	2,400	17,000	5.72	37,000	1.02	923
MAY 1991	163,000	183,000	1,080	7,600	65,000	5.51	139,000	1.02	747
JUN 1991	77,000	137,500	820	2,840	14,000	6.28	56,000	1.02	300
JUL 1991	87,000	174,500	900	4,200	20,000	5.82	65,000	1.02	580
AUG 1991	74,000	174,500	493	6,100	18,000	5.95	53,000	1.00	530
SEP 1991	122,000	208,000	660	3,900	59,000	5.73	100,000	1.03	630
OCT 1991	64,000	68,400	840	3,040	23,500	5.90	44,000	1.02	500
NOV 1991	95,000	50,087	904	3,250	14,000	6.12	74,000	1.04	390
DEC 1991	99,000	28,333	865	2,420	9,000	5.68	49,000	1.02	364
JAN 1992	55,000	78,634	570	1,780	11,400	5.85	30,000	1.01	190
FEB 1992	48,600	14,751	593	1,600	11,000	6.01	29,000	1.02	222
MAR 1992	41,000	40,262	213	630	9,400	5.80	26,000	1.00	170
APR 1992	115,000	119,225	480	580	33,100	5.72	101,000	0.97	472
MAY 1992	35,000	54,097	460	1,350	11,000	6.60	22,000	0.98	440
JUN 1992	91,000	74,725	1,370	3,420	39,600	6.11	77,000	0.98	357
JUL 1992	59,500	101,883	700	5,850	19,600	5.95	35,600	0.97	880
AUG 1992	48,000	48,500	750	1,640	12,500	5.64	38,000	1.02	110
SEP 1992	52,100	59,054	1,180	3,000	14,000	5.90	35,500	1.01	500

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
OCT 1992	110,000	56,074	1,670	4,800	24,000	6.12	82,000	<u>0.93</u>	927
NOV 1992	106,000	64,348	660	2,300	64,300	5.63	84,700	0.99	490
DEC 1992	91,300	58,193	990	1,830	30,100	5.68	62,100	1.03	240
JAN 1993	71,100	60,319	570	3,000	23,100	5.73	47,000	1.05	250
Maximum	176,500	242,750	1,670	7,600	65,000	6.6	150,500	1.05	2,120
Minimum	35,000	14,751	213	500	8,500	5.5	22,000	0.97	110
Number	30	30	30	29	30	30	30	29	28
Mean	85,570	100,055	835	3,123	26,370	5.9	62,747	1.01	657
Std. Dev.	35,073	59,579	364	1,756	16,996	0.3	33,077	0.02	526
Outlier +	190,788	278,791	1,928	8,391	77,358	6.7	161,977	1.07	2,235
Outlier -	-19,648	-78,682	-257	-2,144	-24,618	5.1	-36,483	0.95	-921
DAF Sludge Data With Outliers Removed and Recommended Permit Limits									
Number	30	30	30	29	30	30	30	29	28
Mean	85,570	100,055	835	3,123	26,370	5.9	62,747	1.01	657
Std. Dev.	35,073	59,579	364	1,756	16,996	0.3	33,077	0.02	526
Upper Limit	163,432	232,319	1,644	7,021	64,101	5.3	136,177	1.06	1,825
Lower Limit						6.5		0.97	
Rounded Limit	163,430	232,320	1,640	7,020	64,100		136,180		1,830
RSA Section 102 Special Permit #OD 90-01 DAF Sludge Limits									
Upper Limit	230,460	376,520	3,050	18,100	129,590	5.5	182,210	1.07	7,500
Lower Limit						7.0		0.92	
Changes in DAF Sludge Limits from OD 90-01 to OD 93-01									
Upper Limit	-67,030	-144,200	-1,410	-11,080	-65,490	-0.2	-46,030	-0.01	-5,670
Percent Change	-29	-38	-46	-61	-51	-4	-25	-1	-76
Lower Limit						-0.5		0.05	
Percent Change						-7		5	

* = Violation of MPRSA § 102 Permit #OD 90-01, NA = Not Available, Underlined Value = Outlier not included in limit calculations.

Table 2. StarKist Samoa Cooker Juice Data from August 1990 to January 1993 under OD 90-01.

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
AUG 1990	58,000	98,000	647	5,200	600	6.09	42,000	1.02	<u>3,865</u>
SEP 1990	34,000	107,500	430	4,000	2,500	6.26	25,000	1.00	<u>1,695</u>
OCT 1990	56,000	69,000	530	4,300	960	6.30	41,000	1.02	<u>3,850</u>
NOV 1990	66,000	56,000	824	4,700	1,300	5.98	49,000	1.03	238
DEC 1990	42,000	47,000	802	4,300	500	6.08	28,000	1.00	406
JAN 1991	43,500	64,500	293	3,251	2,990	6.05	30,500	1.01	236
FEB 1991	31,000	25,500	360	2,200	610	5.92	20,000	1.01	130
MAR 1991	56,000	158,000	590	5,200	410	6.04	38,000	1.02	215
APR 1991	55,000	198,250	616	4,900	2,200	6.16	37,000	1.02	761
MAY 1991	60,000	171,500	785	5,930	350	6.12	40,000	1.01	139
JUN 1991	56,000	111,250	580	5,110	690	6.32	39,000	1.02	260
JUL 1991	43,000	152,000	520	3,400	2,200	6.19	30,000	1.01	270
AUG 1991	74,500	165,000	632	6,100	4,300	6.02	51,000	0.99	295
SEP 1991	79,000	137,500	810	5,200	1,400	6.07	51,000	1.06	326
OCT 1991	129,000	85,050	500	6,270	*12,600	5.98	<u>102,000</u>	1.03	270
NOV 1991	48,000	35,541	541	3,280	2,300	6.11	33,000	1.01	170
DEC 1991	79,000	35,333	728	5,080	*13,400	5.98	56,000	1.02	262
JAN 1992	88,000	86,186	710	5,900	2,100	6.08	56,000	1.04	300
FEB 1992	57,000	39,837	594	4,600	*6,800	6.26	35,000	1.02	762
MAR 1992	63,000	45,016	585	4,480	2,600	6.06	44,000	1.03	380
APR 1992	72,200	54,947	690	5,900	*9,000	6.06	53,500	1.00	350
MAY 1992	68,000	44,799	680	5,900	4,000	6.14	48,000	1.02	220
JUN 1992	58,000	43,429	457	5,330	<u>93</u>	6.07	34,000	1.03	348
JUL 1992	76,800	60,002	540	6,390	*12,600	6.01	55,500	1.03	220
AUG 1992	71,000	50,346	830	6,460	2,820	5.86	44,000	0.98	440
SEP 1992	61,500	43,628	650	6,480	790	6.12	50,600	0.99	220

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
OCT 1992	62,000	47,067	756	5,600	1,700	6.21	42,000	1.06	228
NOV 1992	78,200	35,976	640	<u>9,500</u>	2,010	6.10	53,900	1.04	690
DEC 1992	72,000	47,263	860	6,630	340	5.98	41,300	1.01	190
JAN 1993	131,000	56,181	690	6,100	<u>*23,000</u>	6.05	<u>103,000</u>	1.01	300
Maximum	131,000	198,250	860	6,630	13,400	6.3	56,000	1.06	762
Minimum	31,000	25,500	293	2,200	340	5.9	20,000	0.98	130
Number	30	30	30	29	28	30	28	30	27
Mean	65,623	79,053	629	5,110	3,360	6.1	41,725	1.02	319
Std. Dev.	21,870	47,792	139	1,105	3,808	0.1	9,765	0.02	165
Outlier +	131,232	222,429	1,045	8,426	14,784	6.4	71,019	1.07	816
Outlier -	14	-64,322	213	1,794	-8,065	5.8	12,431	0.96	-177
Cooker Juice Data With Outliers Removed and Recommended Permit Limits									
Number	30	30	30	29	28	30	28	30	27
Mean	65,623	79,053	629	5,110	3,360	6.1	41,725	1.02	319
Std. Dev.	21,870	47,792	139	1,105	3,808	0.1	9,765	0.02	165
Upper Limit	114,174	185,151	937	7,564	11,814	5.9	63,402	1.06	687
Lower Limit						6.3		0.98	
Unrounded Limit	114,180	185,150	940	7,560	11,810		63,400		690
MPRSA Section 102 Special Permit #OD 90-01 Cooker Juice Limits									
Upper Limit	158,290	365,450	1,150	21,380	4,830	5.5	146,900	1.06	21,200
Lower Limit						7.0		0.97	
Changes in Cooker Juice Limits from OD 90-01 to OD 93-01									
Upper Limit	-44,110	-180,300	-210	-13,820	6,980	0.4	-83,500	0.00	-20,510
Percent Change	-28	-49	-18	-65	145	6	-57	0	-97
Lower Limit						-0.7		0.01	
Percent Change						-10		1	

* = Violation of MPRSA § 102 Permit #OD 90-01, NA = Not Available, Underlined Value = Outlier not included in limit calculations.

Table 3. StarKist Samoa Press Liquor Data from August 1990 to January 1993 under OD 90-01.

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
AUG 1990	245,000	164,000	*2,030	23,000	50,000	5.93	221,000	1.04	<u>9,300</u>
SEP 1990	260,000	189,000	*2,242	12,400	*120,000	6.08	244,000	1.03	<u>3,845</u>
OCT 1990	245,000	157,500	654	10,000	*83,000	6.28	230,000	<u>0.94</u>	<u>3,050</u>
NOV 1990	200,000	158,500	1,105	8,800	*89,000	6.25	180,000	1.03	360
DEC 1990	205,000	143,000	1,257	9,650	54,000	6.28	184,000	1.04	565
JAN 1991	207,000	161,500	648	14,487	50,500	6.16	187,000	1.02	360
FEB 1991	190,000	138,000	1,850	11,000	40,000	6.22	165,000	1.06	280
MAR 1991	250,000	241,000	1,590	10,600	60,000	6.03	231,000	1.05	350
APR 1991	210,000	327,375	1,120	13,900	*72,000	6.15	185,000	1.02	943
MAY 1991	231,000	76,500	*2,430	13,000	*63,000	6.10	201,000	1.02	1,030
JUN 1991	178,000	270,500	1,540	10,200	45,000	6.21	159,000	1.01	510
JUL 1991	242,000	183,000	*2,200	11,400	41,000	6.34	216,000	1.07	800
AUG 1991	146,000	212,000	1,000	10,500	32,000	6.11	129,000	0.97	325
SEP 1991	155,000	230,500	1,300	7,400	38,000	5.95	127,000	1.04	495
OCT 1991	149,000	137,200	1,470	10,700	28,100	5.99	121,000	1.00	530
NOV 1991	76,000	73,928	800	6,000	8,400	6.08	54,000	1.03	280
DEC 1991	240,000	116,033	*2,180	14,100	43,800	5.95	212,000	1.02	503
JAN 1992	237,000	287,080	1,900	12,600	43,000	6.25	206,000	1.04	890
FEB 1992	224,000	131,039	1,660	11,600	47,000	6.22	203,000	1.04	782
MAR 1992	271,000	189,000	*3,620	13,600	*53,000	6.45	229,000	1.03	1,490
APR 1992	256,000	220,167	1,600	14,100	*80,400	6.30	232,000	1.04	1,160
MAY 1992	*288,000	253,917	1,600	13,000	*114,500	6.13	224,000	1.06	370
JUN 1992	198,000	256,800	1,350	13,600	50,500	6.19	172,000	1.04	247
JUL 1992	116,000	124,542	760	9,160	30,600	6.02	90,300	1.02	240
AUG 1992	190,000	159,667	1,940	13,700	*91,000	5.95	122,000	1.03	520
SEP 1992	203,000	189,933	1,490	17,800	52,700	6.26	179,000	1.01	660

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
OCT 1992	49,000	133,347	633	5,200	18,000	6.52	37,000	1.04	1,080
NOV 1992	171,000	142,510	1,070	6,700	*75,500	6.08	152,000	1.02	1,160
DEC 1992	268,000	163,470	*3,100	19,200	49,500	5.95	217,000	1.05	1,000
JAN 1993	240,000	157,000	*2,300	15,300	59,900	6.18	192,000	1.06	550
Maximum	288,000	327,375	3,620	23,000	120,000	6.5	244,000	1.07	1,490
Minimum	49,000	73,928	633	5,200	8,400	5.9	37,000	0.97	240
Number	30	30	30	30	30	30	30	29	27
Mean	204,667	179,600	1,615	12,090	56,113	6.2	176,710	1.03	647
Std. Dev.	55,497	59,096	697	3,725	25,212	0.1	52,059	0.02	335
Outlier +	371,159	356,887	3,705	23,265	131,750	6.6	332,887	1.09	1,651
Outlier -	38,175	2,314	-476	915	-19,523	5.7	20,533	0.97	-356
Press Liquor Data With Outliers Removed and Recommended Permit Limits									
Number	30	30	30	30	30	30	30	29	27
Mean	204,667	179,600	1,615	12,090	56,113	6.2	176,710	1.03	647
Std. Dev.	55,497	59,096	697	3,725	25,212	0.1	52,059	0.02	335
Upper Limit	327,871	310,792	3,162	20,359	112,084	5.8	292,281	1.08	1,390
Lower Limit						6.5		0.99	
Rounded Limit	327,870	310,790	3,160	20,360	112,080		292,280		1,390
MPRSA Section 102 Special Permit #OD 90-01 Press Liquor Limits									
Upper Limit	271,920	399,090	1,990	31,550	62,150	5.5	385,630	1.07	21,170
Lower Limit						7.0		0.96	
Changes in Press Liquor Limits from OD 90-01 to OD 93-01									
Upper Limit	55,950	-88,300	1,170	-11,190	49,930	0.3	-93,350	0.01	-19,780
Percent Change	21	-22	59	-35	80	6	-24	1	-93
Lower Limit						-0.5		0.03	
Percent Change						-7		3	

* = Violation of MPRSA § 102 Permit #OD 90-01, NA = Not Available, Underlined Value = Outlier not included in limit calculations.

Table 4. VCS Samoa Packing DAF Sludge Data from August 1990 to December 1992 under OD 90-02.

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)	pH (pH units)
AUG 1990	140,000	140,000	2,050	6,800	11,500	130,000	0.97	*3,050	6.8
SEP 1990	41,500	97,000	405	4,900	20,000	30,000	1.02	*3,650	6.8
OCT 1990	142,000	286,000	820	7,900	108,000	129,000	0.99	*2,800	6.9
NOV 1990	150,000	96,000	770	2,900	39,000	141,000	0.87	310	*5.3
DEC 1990	168,000	NA	1,900	*15,400	60,000	158,000	0.98	1,600	6.3
JAN 1991	105,000	NA	3,350	NA	74,180	76,000	0.95	*3,000	6.2
FEB 1991	179,000	NA	2,300	8,400	89,480	161,000	0.98	990	5.8
MAR 1991	175,000	86,000	1,450	NA	22,775	162,000	1.01	1,650	6.1
APR 1991	395,000	NA	1,500	NA	263,150	*375,000	0.98	1,470	5.7
MAY 1991	228,000	139,000	*4,250	NA	99,115	215,000	0.98	1,850	5.7
JUN 1991	327,000	NA	1,950	8,400	205,270	306,000	0.98	590	*5.2
JUL 1991	349,000	246,000	750	6,272	126,000	*337,000	0.99	1,220	5.7
AUG 1991	236,000	132,000	1,150	1,344	51,000	219,000	0.96	1,000	5.5
SEP 1991	266,000	108,000	2,300	560	187,850	246,000	0.97	830	*5.2
OCT 1991	234,000	232,000	1,050	2,240	131,300	227,000	0.95	1,090	6.0
NOV 1991	258,000	NA	2,100	11,200	133,600	236,000	0.98	1,400	5.6
DEC 1991	432,000	NA	3,000	*19,600	280,000	*421,000	0.95	1,130	6.0
JAN 1992	254,100	221,000	2,700	8,400	*373,000	*414,000	0.93	190	*4.7
FEB 1992	315,400	200,000	300	3,150	*299,000	*360,000	0.91	1,440	5.5
MAR 1992	296,700	<u>*518,000</u>	<u>*7,200</u>	4,900	182,000	*336,000	0.99	580	5.7
APR 1992	222,100	2,220	1,800	*17,500	154,780	251,000	0.99	2,020	5.9
MAY 1992	231,000	<u>*4,780,000</u>	1,300	12,600	*350,440	281,000	0.94	930	5.9
JUN 1992	294,000	290,000	1,200	14,000	*428,160	280,000	0.88	463	5.5
JUL 1992	114,000	136,000	1,700	11,900	173,000	100,000	*0.83	670	5.6
AUG 1992	130,000	260,000	3,300	*19,600	3,700	95,000	0.98	1,810	5.8
SEP 1992	52,000	42,300	1,800	12,880	62,600	36,000	0.93	706	6.3

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)	pH (pH units)
OCT 1992	159,000	182,800	1,000	6,720	173,600	148,000	0.92	640	5.9
NOV 1992	151,000	151,000	1,500	15,120	151,720	137,000	0.89	*3,300	6.3
DEC 1992	*494,000	38,700	1,200	10,640	99,320	44,500	0.97	730	6.2
Maximum	494,000	290,000	4,250	19,600	428,160	421,000	1.02	3,650	6.9
Minimum	41,500	2,220	300	560	3,700	30,000	0.83	190	4.7
Number	29	20	28	25	29	29	29	29	29
Mean	225,476	154,301	1,746	9,333	150,122	208,672	0.95	1,418	5.9
Std. Dev.	106,449	81,405	921	5,448	110,620	111,212	0.04	924	0.5
Outlier +	544,824	398,516	4,508	25,676	481,981	542,307	1.08	4,189	7.3
Outlier -	-93,872	-89,914	-1,016	-7,010	-181,737	-124,962	0.82	-1,354	4.4
DAF Sludge Data With Outliers Removed and Recommended Permit Limits									
Number	29	20	28	25	29	29	29	29	29
Mean	225,476	154,301	1,746	9,333	150,122	208,672	0.95	1,418	5.9
Std. Dev.	106,449	81,405	921	5,448	110,620	111,212	0.04	924	0.5
Upper Limit	461,794	349,348	3,790	21,819	395,698	455,562	1.05	3,468	4.8
Lower Limit							0.86		7.0
Rounded Limit	461,790	349,350	3,790	21,820	395,700	455,560		3,470	
* PRSA Section 102 Special Permit #OD 90-02 DAF Sludge Limits									
Upper Limit	492,000	443,840	3,910	14,950	282,750	308,700	1.08	2,570	5.5
Lower Limit							0.85		7.0
Changes in DAF Sludge Limits from OD 90-02 to OD 93-02									
Upper Limit	-30,210	-94,490	-120	6,870	112,950	146,860	-0.03	900	-0.7
Percent Change	-6	-21	-3	46	40	48	-3	35	-13
Lower Limit							0.01		0
Percent Change							1		0

* = Violation of MPRSA § 102 Permit #OD 90-02, NA = Not Available, Underlined Value = Outlier not included in limit calculations.

Table 5. VCS Samoa Packing Precooker Water Data from August 1990 to December 1992 under OD 90-02.

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)	pH (pH units)
AUG 1990	11,000	6,400	120	890	200	7,700	1.00	<u>590</u>	6.2
SEP 1990	91,000	40,000	970	8,300	7,300	73,000	1.03	<u>780</u>	6.2
OCT 1990	NA	NA	NA	NA	NA	NA	NA	NA	NA
NOV 1990	<u>*435,000</u>	58,000	460	2,700	<u>34,000</u>	<u>*429,000</u>	1.00	430	6.1
DEC 1990	73,000	NA	950	9,520	<200	50,000	1.03	130	6.1
JAN 1991	102,000	NA	1,100	4,480	<u>23,771</u>	76,000	1.03	260	6.0
FEB 1991	45,000	NA	1,300	5,600	2,866	28,000	0.95	90	6.2
MAR 1991	46,000	21,000	850	4,200	2,499	32,000	1.02	130	6.6
APR 1991	52,000	NA	950	4,340	5,229	35,000	1.04	135	5.9
MAY 1991	58,000	33,000	1,450	2,800	7,212	47,000	1.01	235	5.8
JUN 1991	83,000	NA	1,675	5,600	7,814	55,000	1.04	220	5.9
JUL 1991	95,000	37,000	1,025	1,820	3,000	69,000	1.03	200	5.9
AUG 1991	51,000	35,000	1,150	1,750	11,300	45,000	0.99	110	6.2
SEP 1991	62,000	30,000	575	2,240	<u>48,630</u>	53,000	1.04	110	6.1
OCT 1991	72,000	40,000	725	700	2,100	48,000	1.02	225	6.3
NOV 1991	65,000	33,000	900	6,020	7,800	50,000	0.99	120	6.4
DEC 1991	31,000	NA	1,250	3,500	7,800	24,000	0.99	<u>1,380</u>	6.0
JAN 1992	71,000	24,300	2,000	6,580	900	49,000	1.00	120	6.0
FEB 1992	50,000	19,300	300	3,150	2,600	39,000	0.97	156	6.7
MAR 1992	32,000	17,000	1,200	3,850	670	23,000	0.98	250	6.1
APR 1992	77,900	510	400	7,875	7,190	63,000	0.98	178	6.0
MAY 1992	59,000	<u>*258,000</u>	650	4,375	4,362	41,000	0.99	160	6.0
JUN 1992	34,000	19,300	850	5,250	3,318	22,000	0.98	90	6.3
JUL 1992	32,700	19,900	950	5,250	6,504	21,300	0.97	98	5.9
AUG 1992	67,000	42,000	1,000	7,980	<u>*264,000</u>	54,000	1.00	415	5.4
SEP 1992	81,000	58,200	900	9,660	2,640	47,000	0.99	293	5.9

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)	pH (pH units)
OCT 1992	103,000	47,000	1,400	10,920	6,504	73,000	1.02	208	6.1
NOV 1992	97,000	30,900	1,000	13,300	3,490	65,600	1.00	325	6.2
DEC 1992	63,300	30,200	1,100	12,042	2,808	46,100	1.00	220	6.0
Maximum	103,000	58,200	2,000	13,300	11,300	76,000	1.04	430	6.7
Minimum	11,000	510	120	700	200	7,700	0.95	90	5.4
Number	27	21	28	28	24	27	28	25	28
Mean	63,144	30,572	971	5,525	4,429	45,804	1.00	196	6.1
Std. Dev.	23,438	14,373	396	3,289	2,898	17,408	0.02	92	0.2
Outlier +	133,460	73,691	2,161	15,392	13,123	98,028	1.07	474	6.8
Outlier -	-7,171	-12,547	-218	-4,343	-4,264	-6,421	0.93	-81	5.4
Precooker Water Data With Outliers Removed and Recommended Permit Limits									
Number	27	21	28	28	24	27	28	25	28
Mean	63,144	30,572	971	5,525	4,429	45,804	1.00	196	6.1
Std. Dev.	23,438	14,373	396	3,289	2,898	17,408	0.02	92	0.2
Upper Limit	115,178	64,651	1,851	12,827	11,178	84,450	1.06	408	5.5
Lower Limit							0.95		6.6
Rounded Limit	115,180	64,650	1,850	12,830	11,180	84,450		410	
MPRSA Section 102 Special Permit #OD 90-02 Precooker Water Limits									
Upper Limit	257,290	60,220	2,170	20,820	207,830	358,180	1.04	2,740	5.5
Lower Limit							0.96		7.0
Changes in Precooker Water Limits from OD 90-02 to OD 93-02									
Upper Limit	-142,110	4,430	-320	-7,990	-196,650	-273,730	0.02	-2,330	0
Percent Change	-55	7	-15	-38	-95	-76	1	-85	0
Lower Limit							-0.01		-0.4
Percent Change							-1		-5

* = Violation of MPRSA § 102 Permit #OD 90-02, NA = Not Available, Underlined Value = Outlier not included in limit calculations.

Table 6. VCS Samoa Packing Press Water Data from August 1990 to December 1992 under OD 90-02.

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)	pH (mg/L)
AUG 1990	280,000	230,000	1,000	1,200	150,000	260,000	1.02	<u>2,900</u>	6.9
SEP 1990	193,000	NA	990	10,800	52,000	178,000	1.02	360	6.9
OCT 1990	NA	NA	NA	NA	NA	NA	NA	NA	NA
NOV 1990	216,000	109,000	1,290	9,700	53,000	200,000	1.00	400	6.0
DEC 1990	273,000	NA	1,250	*39,200	107,000	252,000	1.04	510	6.2
JAN 1991	286,000	NA	2,550	21,000	157,020	266,000	1.03	290	5.9
FEB 1991	128,000	172,000	900	4,760	42,130	111,000	1.00	240	6.1
MAR 1991	290,000	102,000	2,850	NA	57,350	270,000	1.04	440	6.1
APR 1991	258,000	NA	1,350	12,600	86,580	229,000	1.02	452	5.8
MAY 1991	105,000	58,000	<u>4,100</u>	NA	22,315	89,000	1.01	875	6.0
JUN 1991	287,000	NA	1,800	23,800	132,010	260,000	1.04	350	5.8
JUL 1991	202,000	118,000	1,400	7,000	32,000	178,000	1.02	320	5.9
AUG 1991	235,000	165,000	1,950	4,200	41,000	214,000	*0.97	300	5.9
SEP 1991	282,000	185,000	1,650	3,920	143,410	262,000	1.06	270	6.0
OCT 1991	165,000	91,000	1,950	3,920	15,100	148,000	1.02	287	6.3
NOV 1991	163,000	NA	2,100	8,960	42,600	147,000	1.02	250	6.5
DEC 1991	41,000	NA	2,200	11,200	8,000	29,000	1.00	<u>3,160</u>	6.0
JAN 1992	269,000	163,000	3,000	23,240	93,000	251,000	1.00	760	6.2
FEB 1992	42,175	86,000	2,100	*35,200	68,000	140,000	1.00	382	6.1
MAR 1992	136,200	222,000	<u>5,700</u>	14,000	120,000	246,000	0.99	510	6.3
APR 1992	76,775	1,980	1,000	21,000	78,710	*448,000	1.00	265	6.1
MAY 1992	22,600	311,000	600	9,800	125,710	*395,000	*0.97	230	6.0
JUN 1992	355,000	300,000	1,000	17,500	54,550	339,000	0.99	503	6.2
JUL 1992	234,000	88,500	1,400	18,200	75,430	199,000	1.00	305	5.9
AUG 1992	166,000	340,000	1,500	14,000	<u>242,000</u>	95,000	0.99	580	5.5
SEP 1992	163,000	125,000	1,300	17,920	68,600	131,000	0.98	510	6.0

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil and Grease (mg/L)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)	pH (mg/L)
OCT 1992	138,000	98,100	1,300	12,600	75,430	106,000	1.00	815	6.2
NOV 1992	229,000	179,000	1,200	17,080	39,640	201,000	0.99	239	6.1
DEC 1992	189,000	77,500	1,500	15,120	32,350	171,000	1.02	550	6.2
Maximum	355,000	340,000	3,000	39,200	157,020	448,000	1.06	875	6.9
Minimum	22,600	1,980	600	1,200	8,000	29,000	0.97	230	5.5
Number	28	21	26	26	27	28	28	26	28
Mean	193,741	153,432	1,582	14,535	73,072	207,679	1.01	423	6.1
Std. Dev.	84,581	85,668	596	8,973	41,795	90,827	0.02	177	0.3
Outlier +	447,484	410,436	3,369	41,455	198,457	480,159	1.07	953	7.0
Outlier -	-60,002	-103,571	-205	-12,384	-52,314	-64,802	0.94	-108	5.3
Press Water Data With Outliers Removed and Recommended Permit Limits									
Number	28	21	26	26	27	28	28	26	28
Mean	193,741	153,432	1,582	14,535	73,072	207,679	1.01	423	6.1
Std. Dev.	84,581	85,668	596	8,973	41,795	90,827	0.02	177	0.3
Upper Limit	381,511	356,551	2,947	35,102	165,857	409,314	1.06	828	5.5
Lower Limit							0.96		6.8
Round Limit	381,510	356,550	2,950	35,100	165,860	409,310		830	
MPRSA Section 102 Special Permit #OD 90-02 Press Water Limits									
Upper Limit	463,780	524,270	6,860	32,020	386,480	384,560	1.07	4,940	5.5
Lower Limit							0.98		7.0
Changes in Press Water Limits from OD 90-02 to OD 93-02									
Upper Limit	-82,270	-167,720	-3,910	3,080	-220,620	24,750	-0.01	-4,110	0
Percent Change	-18	-32	-57	10	-57	6	-1	-83	0
Lower Limit							-0.02		-0.2
Percent Change							-2		-3

Violation of MPRSA § 102 Permit #OD 90-02, NA = Not Available, Underlined Value = Outlier not included in limit calculations.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

MAY 27 1993

MEMORANDUM

SUBJECT: Notice of Complete Applications and Tentative Decision to Issue Special Ocean Dumping Permits (OD 93-01 and OD 93-02) to StarKist Samoa and VCS Samoa Packing Company

FROM: *[Signature]*
for Janet Hashimoto, Chief
Marine Protection Section (W-7-1)

TO: John Lishman, Chief
Marine Pollution Control Branch
Oceans and Coastal Protection Division (WH-556F)

Region IX has determined that StarKist Samoa and VCS Samoa Packing have submitted complete applications for ocean dumping permits to dispose of fish processing wastes off American Samoa. We have prepared two draft special permits (OD 93-01 and OD 93-02) under Section 102 of the Marine Protection, Research and Sanctuaries Act (MPRSA). These permits authorize both companies to dispose of fish processing wastes from their canneries into the Pacific Ocean off American Samoa.

On February 6, 1990, Region IX designated an ocean disposal site 5.45 nautical miles southeast of American Samoa for disposal of fish processing wastes. This site was used for three years, from July 1990 to the present, under MPRSA § 102 special permits issued to the StarKist Samoa and VCS Samoa Packing. We do not anticipate major objections to the permits or continued use of the designated site.

EPA Region IX has developed the following documents to support the tentative determination for this special permit:

1. The public notice for EPA Region IX's action.
2. A fact sheet that describes the rationale behind EPA Region IX's decision.
3. The draft special permits which include general and special conditions.

We will keep you informed of our progress on the permits. If you have comments on the proposed special permits, within 30 days of the date on this memorandum, please contact me at (415) 744-1156.

Attachments (4)

cc: David Redford, OCPD
Regional Ocean Dumping Coordinators, Regions I, II, III, IV, VI AND X



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

**75 Hawthorne Street
San Francisco, CA 94105-3901**

MAY 27 1993

SUBJECT: Notice of Complete Applications and Tentative Decision to Issue Special Ocean Dumping Permits (OD 93-01 and OD 93-02) to StarKist Samoa and VCS Samoa Packing Company

Dear Interested Party:

The U.S. Environmental Protection Agency (EPA), Region IX has determined that StarKist Samoa and VCS Samoa Packing have submitted complete applications for ocean dumping permits to dispose of fish processing wastes off American Samoa. We have prepared two draft special permits (OD 93-01 and OD 93-02) under section 102 of the Marine Protection, Research and Sanctuaries Act (MPRSA). These permits authorize both companies to dispose of fish processing wastes from their canneries into the Pacific Ocean off American Samoa.

On February 6, 1990, Region IX designated an ocean disposal site 5.45 nautical miles southeast of American Samoa for disposal of fish processing wastes. This site was used for three years, from July 1990 to the present, under MPRSA § 102 special permits issued to the StarKist Samoa and VCS Samoa Packing.

EPA Region IX has developed the following documents to support the tentative determination for this special permit:

1. The public notice for EPA Region IX's action.
2. A fact sheet that describes the rationale behind EPA Region IX's decision.
3. The draft special permits which include general and special conditions.

If you have comments on the proposed special permits, please submit your concerns in writing within 30 days of the publication date to me at the EPA address above. If you have any questions regarding the permits, you may call Patricia Young at (415) 744-1594, or me at (415) 744-1156.

Sincerely,

David Stuart

for

Janet Y. Hashimoto, Chief
Marine Protection Section (W-7-1)

Enclosures (3)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

MAY 27 1993

COMMUNICATION STRATEGY

Action: Public Notice of draft Marine Protection, Research and Sanctuaries Act Section 102 permits for StarKist Samoa and VCS Samoa Packing in American Samoa.

Projected
Announcement: Monday June 7, 1993

Location: American Samoa

Background: EPA Region IX has made a tentative decision to issue Marine Protection, Research and Sanctuaries Act (MPRSA) Section 102 permits to StarKist Samoa and VCS Samoa Packing. These special permits will allow the canneries to continue disposing of fish processing wastes off American Samoa at an ocean disposal site designated by EPA Region IX in February 1990. The special permits will cover a three-year period, from July 31, 1993 through July 31, 1996. Special conditions in the permits include: 1) waste stream limits, 2) monthly waste stream analyses and reports, 3) confirmatory bioassays and plume model analyses, 4) use of a computerized navigation system aboard a new disposal vessel, and 5) disposal site monitoring. The canneries have been disposing of fish processing wastes off American Samoa since 1979 without any significant adverse environmental effects.

Press Release Information

1. Permit applications by StarKist Samoa and VCS Samoa Packing found to be complete.
2. EPA Region IX's tentative decision is to issue three-year special MPRSA Section 102 permits to both canneries for the period July 31, 1993 through July 31, 1996.
3. Waste stream limits reduced for most parameters because the wastes have been characterized better by the canneries.
4. Confirmatory bioassays and new plume modeling work required because the waste streams are different than previous reports and a new disposal vessel, the FV TASMAN SEA, will be used to dispose of the wastes at the designated ocean disposal site.
5. A computerized navigation system is required to provide more accurate plots of the disposal vessel tracks.

Public Interest: Low

Staff Contact: Patrick Cotter (W-7-1), 4-1163
Division Dir.: Harry Seraydarian (W-1)
Attorney: None
Press Officer: Lois Grunwald (E-2), 4-1588

EPA REGION IX COMMUNICATION STRATEGY

Action: Public Notice of draft Marine Protection, Research and Sanctuaries Act Section 102 permits for StarKist Samoa and VCS Samoa Packing in American Samoa.

Projected

Announcement: Monday, June 7, 1993

Materials to be Prepared

A: Press Release

B: Draft MPRSA Section 102 Permits

C: Fact Sheet

D: Public Notice for Newspapers

By Whom:

Lois Grunwald

Patrick Cotter

Patrick Cotter

Patrick Cotter

Note: Press Release at day 0 (June 7) after confirmation from newspapers that the Public Notice will be printed as requested.

AUDIENCE	DAY	EPA STAFF	METHOD	MATERIALS
Responsible Parties				
StarKist Foods	-9	Cotter	Phone/Mail	B,C,D
Van Camp Seafood	"	"	"	"
StarKist Samoa	-9	P. Young (E-4)	Ph./Ex.Mail	"
VCS Samoa Packing	"	"	"	"
Media				
American Samoa	0	Grunwald	PR News	A
Hawaii	"	"	"	"
Federal Elected Officials				
NA				
American Samoa Elected Officials				
NA				
Federal Agencies				
USCG Liaison Office, AS	-9	Young	Express Mail	B,C,D
USCG District, HI	-3	Cotter	Mail	"
DOI Territorial & Int. Affairs	"	"	"	"
NOAA Sanctuaries & Reserves	"	"	"	"
COE Honolulu District	"	"	"	"
USFWS HI	"	"	"	"
NOAA NMFS HI	"	"	"	"
FDA SSB	"	"	"	"
American Samoa Agencies				
Togipa Tasuga ASEPA	-9	Young	Express Mail	B,C,D
Lelei Peau, ASCMP	"	"	"	"
Ray Tulafona, ASMWR	"	"	"	"
Alfonso Galea'i, ASED	"	"	"	"
Malaestasi Togufau, ASAG	"	"	"	"
Local Elected Officials				
None				

AUDIENCE	DAY	EPA STAFF	METHOD	MATERIALS
Public Affairs None				
Public Interest Groups See mailing list	-3	Cotter	Mail	B,C,D
EPA Offices Oceans and Coastal Protection Division Regional Ocean Dumping Coordinators, Regions I, II, III, IV, VI and X PICO, Hawaii	-3 " "	Cotter " "	Mail " "	B,C,D " "
Other Persons to be Notified None				

MAY 27 1993

✓ Norman S. Wei, Senior Manager
Environmental Engineering
StarKist Seafood Company, Inc.
180 East Ocean Boulevard
Long Beach, CA 90802-4797

✓ Maurice W. Callaghan
General Manager
StarKist Samoa, Inc.
P.O. Box 368
Pago Pago, American Samoa 96799

Thomas J. Gilmore
Counsel
Van Camp Seafood Company, Inc.
4510 Executive Drive, Suite 300
San Diego, CA 92121-4566

James McCafferty
General Counsel
Van Camp Seafood Company, Inc.
11555 Sorento Valley Road, Suite 100
San Diego, CA 92121-1396

David Dressel
Chief, Shellfish Sanitation Branch (HFF-334)
U.S. Food and Drug Administration, Room 3029
200 C Street, S.W.
Washington, D.C. 20204

David Redford
Office of Wetlands, Oceans and Watersheds (WH-556F)
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Vicki Tsuhako
U.S. Environmental Protection Agency
P.O. Box 50003
300 Ala Moana Boulevard, Room 5124
Honolulu, HI 96850

Michael Lee, Chief
Environmental Branch
Corps of Engineers, Honolulu District
Building 230
Fort Shafter, HI 96858-5440

Dr. John Naughton
NMFS, Southwest Region
Western Pacific Program Office
2570 Dole Street
Honolulu, HI 96822-2396

Kitty Simonds, Executive Director
Western Pacific Regional
Fishery Management Council
1164 Bishop Street, Suite 1405
Honolulu, HI 96813

✓ James L. Cox, Director
Engineering and Environmental Affairs
Van Camp Seafood Company, Inc.
4510 Executive Drive, Suite 300
San Diego, CA 92121-3029

✓ Michael P. Macready
General Manager
Samoa Packing Company, Inc.
P.O. Box 957
Pago Pago, American Samoa 96799

John Ciko
Assistant General Counsel
H.J. Heinz Company
P.O. Box 57
Pittsburgh, PA 15230-0057

Nancy Fanning
Director, Office of Territorial Liaison
Office of Territorial and International Affairs
Department of the Interior
Washington, D.C. 20460

John Lishman
Office of Wetlands, Oceans and Watersheds (WH-556F)
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Francesca Cava, Chief
Sanctuaries and Reserves Division
National Oceanic and Atmospheric Administration
1305 East-West Highway
Silver Spring, MD 20910

Chief
Engineering Division
Corps of Engineers, Honolulu District
Building 230
Fort Shafter, HI 96858-5440

Alan Marmelstein
U.S. Fish and Wildlife Service
300 Ala Moana Boulevard, Room 5302
P.O. Box 50007
Honolulu, HI 96580

Chief, Marine Safety Division
14th Coast Guard District
300 Ala Moana Boulevard, Room 9141
P.O. Box 50229
Honolulu, HI 96850

Kymberlee Keckler
Water Quality Branch (WQE-1900)
U.S. EPA, Region I
JFK Federal Building, Room 2203
Boston, MA 02203

Chief
Marine and Wetlands Protection Branch
U.S. EPA, Region II
26 Federal Plaza
New York, NY 10278

Bill Muir
Regional Oceanographer
U.S. EPA, Region III
841 Chestnut Building
Philadelphia, PA 19107

Suzy Cantor-McKinny
Marine and Estuarine Section
U.S. EPA, Region VI
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Patricia S. Port
Regional Environmental Officer
Department of Interior
450 Golden Gate Avenue, Room 14444
San Francisco, CA 94102

Regional Director
National Marine Fisheries Service
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, CA 90802-4213

Sheila Wiegman, Env. Coord.
American Samoa Environmental Protection Agency
Office of the Governor
American Samoa Government
Pago Pago, American Samoa 96799

✓Lelei Peau, Manager
American Samoa Coastal Management Program
Office of the Governor
American Samoa Government
Pago Pago, American Samoa 96799

✓Alfonso Galea'i, Director
Economic Development Planning Office
Office of the Governor
American Samoa Government
Pago Pago, American Samoa 96799

David Chatfield
Executive Director
Greenpeace Pacific Southwest
Fort Mason Center, Building E
San Francisco, CA 94123

Executive Director
Pacific Seafood Industries
P.O. Box 2511
Santa Barbara, CA 93120

Alex Lechich
Marine and Wetlands Protection Branch
U.S. EPA, Region II
26 Federal Plaza
New York, NY 10278

Robert Howard
Coastal Regulatory Unit
U.S. EPA, Region IV
345 Courtland Street, N.E.
Atlanta, GA 30365

John Malek
Environmental Evaluation Branch (WD-138)
U.S. EPA, Region X
1200 Sixth Avenue
Seattle, WA 98101

Rolf Wallentron
U.S. Fish and Wildlife Service
Lloyd Five Hundred Building, Suite 1692
500 Multnomah Street
Portland, OR 97232

✓Togipa Tausaga, Director
American Samoa Environmental Protection Agency
Office of the Governor
American Samoa Government
Pago Pago, American Samoa 96799

✓Lt. Cmdr. Randy Clark
U.S. Coast Guard Liaison Office
P.O. Box 249
Pago Pago, American Samoa 96799

✓Ray Tulafono, Director
Office of Marine and Wildlife Resources
P.O. Box 3730
Pago Pago, American Samoa 96799

✓Malaetasi Togufau
Attorney General
Office of the Governor
American Samoa Government
Pago Pago, American Samoa 96799

Executive Director
Fisheries Protection Institution
P.O. Box 867
Summerland, CA 93067

Dr. Jay D. Hair
Executive Vice President
National Wildlife Federation
1412 16th Street, N.W.
Washington, D.C. 20236

William Herlong
Covington and Burling
1201 Pennsylvania Avenue, N.W.
P.O. Box 7566
Washington, D.C. 20044

Dr. George Losey
Acting Director
Hawaii Institute of Marine Biology
P.O. Box 1346
Kaneohe, HI 96744

Johanna H. Wald
Natural Resources Defense Council
90 New Montgomery Street, Suite 620
San Francisco, CA 94105

John M. Ravnik
Seafarers International Union of North America
350 Fremont Street
San Francisco, CA 94105

Dr. Dorothy Soule
SOS Environmental
2361 Hill Drive
Los Angeles, CA 90041

Jerry Norris
Executive Director
Pacific Basin Development Council
567 South King Street, Suite 325
Honolulu, HI 96813

Ajay Agrawal
AGI International
1932 First Avenue, Suite 507
Seattle, Washington 98101

Executive Director
Oceanic Society Bay Chapter
Fort Mason, Building E
San Francisco, CA 94123

Jacqueline N. Miller
University of Hawaii
Environmental Center
Crawford 317, 2550 Campus Road
Honolulu, HI 96822

Dr. James Parrish
Hawaii Cooperative Fisheries Research Unit
2528 The Mall
University of Hawaii
Honolulu, HI 96822

John Enright
President
Le Vaomatua
P.O. Box B
Pago Pago, American Samoa 96799

Ronald A. Zumbrun
President
Pacific Legal Foundation
2700 Gateway Oaks Drive, #200
Sacramento, CA 95833

Dr. Joseph D. Germano
Director of Environmental Studies
Science Applications International Corporation
221 Third Street
Newport, RI 02840



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

MAY 28 1993

MEMORANDUM

SUBJECT: Public Notice of a Tentative Decision to Issue Ocean Dumping Permits to the Canneries in American Samoa

FROM: *for* *Amy K. Zimpfer*
Amy K. Zimpfer, Chief
Wetlands, Oceans and Estuaries Branch (W-7)

TO: Harry Seraydarian, Director
Water Management Division (W-1)

I am alerting you about an Ocean Dumping permitting action that is proposed for two tuna canneries in American Samoa. I have attached copies of the Fact Sheet, the Notice of Application and the Communication Strategy to show you what we propose to do for these permits. The canneries, StarKist Samoa and VCS Samoa Packing, have been dumping fish processing wastes at a site 5.45 nautical miles southeast of American Samoa for the past three years under MPRSA § 102 special permits. These new permits will be effective from July 31, 1993 through July 31, 1996. Now, we must issue another three-year permit to each cannery for them to continue to dump at the site. Under MPRSA, we can only issue special permits for three years at a time.

The Marine Protection Section has reviewed the canneries' waste stream data and prepared two new permits based on the last three years of disposal activities. The new permits are similar to the last ones, except for the following conditions:

1. Waste stream limits were changed for both canneries based on their waste stream analytical reports. In most cases, the limits were lowered. Only a few limits were raised to reflect the new characteristics of the waste streams (see page 6 of the Fact Sheet).
2. Since the waste streams are quite different compared to the past and a new disposal vessel (the FV TASMAN SEA) is being proposed, Region IX will require that the canneries conduct new suspended phase bioassays and rerun the disposal plume model.
3. Analyses for heavy metals and petroleum hydrocarbons in the waste streams were deleted because the concentrations were low and fish oils interfere significantly with the analyses for petroleum hydrocarbons.

4. A computerized navigation system is required now. This will provide Region IX, ASEPA and the Coast Guard with an accurate record of the disposal vessel's tracks during dumping operations.
5. Two new data reporting forms have been prepared to ensure that the canneries present their waste stream and dumping volume information in a format that is useful to Region IX.

I have approved these two draft permits for publication in the *San Francisco Chronicle* and the *American Samoa News*. The draft permits will be out for review for 30 days. After the Marine Protection Section and the Office of Pacific Island and Native American Programs respond to comments and prepare final permits, you will be asked to sign the final permits before July 31, 1993. We do not anticipate any significant comments which would delay permit issuance. However, should there be a delay, the existing permits can be administratively extended until the new permits are issued. If you have any questions on this proposed action, please call me at 4-1953.

Attachments (3)

cc with attachments: Deanna Weiman (E-1)

Pat C.



VAN CAMP
SEAFOOD
COMPANY, INC.

*** FACSIMILE MESSAGE ***

August 3, 1993

American Samoa Coastal Management Program
Economic Development Planning Office
American Samoa Government
Pago Pago, American Samoa 96799

ATTN: Larry Ward, Acting Director of ASCMP (FAX 684-633-4195)

RE: CONSISTENCY DETERMINATION BY ASCMP FOR
OCEAN DISPOSAL PERMIT ISSUANCE

Dear Mr. Ward:

This letter is submitted to the American Samoa Coastal Management Program on behalf of VCS Samoa Packing Company, Inc. It is requested for certification that the proposed activity, ocean dumping of certain high strength fish wastes and sludge, complies with the ASCMP and will be conducted in a manner consistent with such program. A set of findings documenting the activity is consistent with the ASCMP is attached to this letter as Table 1.

It is understood that the Development Planning Office (DPO) will circulate this consistency certification among territorial and local government agencies that may be affected by the proposed activity. A timely response to the request for certification of compliance would be appreciated since the applicant is operating under a deadline.

Thanks for your assistance in this matter. If you have any questions, please call me at 619-597-4212.

Sincerely,

James L. Cox
Director of Engineering
and Environmental Affairs

JLC:ms

cc: Lelei Peau - ASCMP
Sheila Wiegman - ASEPA (FAX 684-633-5801)
Pat Young - USEPA (FAX 415-744-1604)
Mike Macready - VCS

Attachment (1)
080393.2JC

TABLE 1

SUMMARY OF OCEAN DUMPING COMPLIANCE WITH THE AMERICAN SAMOA COASTAL MANAGEMENT PROGRAM (ASCMP) OBJECTIVES

NA = Not Applicable

OBJECTIVE	COMPLIANCE
a. Territorial Administration	NA (O.D. Permit required)
b. Village Development	NA
c. Shoreline Development	NA
d. Coastal Hazard	NA
e. Fisheries Development	NA
f. Slope Erosion	NA
g. Major Facility Siting	NA
h. Agricultural Development	NA
i. Reef Protection	The project will benefit the reefs by improving water quality in Pago Pago Harbor. The ocean dumping location was chosen to avoid impacting the coral reefs in Pago Pago Harbor.
j. Recreation / Shoreline Access	Improved water quality will have a long term, permanent beneficial effect on water dependent recreational activities.
k. Water Quality	Ocean dumping has a beneficial effect in Pago Pago Harbor and will improve water quality throughout the harbor.
l. Marine Resources	The project will have a beneficial impact on marine life by improving the water quality in the Pago Pago Harbor.
m. Drinking Water Quality	NA
n. Unique Areas	Pago Pago Harbor is a unique resource. The project will benefit the area by improving water quality in the harbor.
o. Archaeological/Cultural/ Historical Resources	No archaeological, cultural or historic resources will be impacted by ocean dumping.
p. Special Areas	Pago Pago Harbor is considered a Special Area by ASCMP. Ocean dumping is a water dependent activity that is designed to improve water quality in the harbor.

Cpy to Pat C.



VAN CAMP
SEAFOOD
COMPANY, INC.

June 22, 1993

Pat Young, Program Manager
U.S.E.P.A., Region 9
Office of Pacific Island and
Native American Programs
75 Hawthorne Street
San Francisco, CA 94105-3901

ATTN: Pat Young, Program Manager

RE: Ocean Dumping Permit Comments

Dear Ms. Young:

I have the following comments after review of the draft permit OD93-02 special for VCS Samoa Packing Company, Inc.

Section 3.3.5 requests that the cannery conduct a complicated bioassay testing regimen (previously done in July 1987) and re-evaluate the computer modeling done by SOS Environmental, Inc. done in March 1990.

VCS Samoa Packing Company, Inc. requests that the requirements for retesting and remodeling be eliminated from this permit because the waste streams being dumped (precooker water, press water, and DAF sludge) are the same streams tested in 1987 and computer modeled in 1990. The increased data base of samples since 1990 has allowed EPA to evaluate the limits and in fact propose to reduce most limits.

The monitoring report and data indicate that water quality parameters meet ambient conditions of the ocean before the boundary of the disposal site (5.45 miles offshore).

In summary, VCS Samoa Packing, Inc. respectfully request that bioassay and remodeling be removed because it will be redundant testing while actual ocean dumping monitoring reports indicate the current site and procedures are working as predicted by previous testing to protect the environment.

Ms. Pat Young - USEPA

Page 2

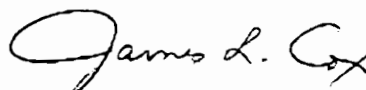
	DAF		PRECOOKER WATER		PRESS WATER	
PARAMETER	NEW	OLD	NEW	OLD	NEW	OLD
TSS	461,790	492,000	115,180	257,290	381,510	463,780
TVS	455,560	308,700	84,450	358,180	409,310	384,560
BOD	349,350	443,840	64,650	60,220	365,550	524,270
O&G	395,700	282,750	11,180	207,830	165,860	386,480
TP	3,790	3,910	1,850	2,170	2,950	6,860
TK	21,820	14,950	12,830	20,820	35,100	32,020
AMMONIA	3,470	2,570	410	2,740	830	4,940
pH	4.8-7.0	5.5-7.0	5.5-6.6	5.5-7.0	5.5-6.8	5.5-7.0
DENSITY	.86-1.05	.85-1.08	.95-1.06	.96-1.04	.96-1.06	.98-1.07

Regarding limits, ignoring pH and density, 15 of 21 limits were reduced. Results of grab samples of nonhomogeneous solutions are normally wide in range. VCS Samoa Packing Company is concerned that the EPA is establishing limits too narrow and low in range which could cause violations in the future. Of specific concern is precooker water ammonia (the new limit would have been exceeded 5 times in the last permit period) and precooker water oil and grease (exceeded 4 times in last permit period). A higher limit is required for these two parameters.

Regarding pH, why would the new limit for precooker and press water upper limit be lower than 7.0? It is suggested that the upper limit remain at 7.0 to give the cannery the option to range as high as 7.0 which is more beneficial to equipment.

Thank you for considering the above requested changes.

Sincerely,



James L. Cox
Director of Engineering
and Environmental Affairs

JLC:ms

cc: Tony Tausaga - ASEPA
062293.1JC

Copy to Cotton

ECONOMIC DEVELOPMENT & PLANNING OFFICE

AMERICAN SAMOA GOVERNMENT
PAGO PAGO, AMERICAN SAMOA 96799

TEL: (684) 633-5155
FAX: (684) 633-4195

ECONOMIC DEVELOPMENT PLANNING OFFICE

June 10, 1993

American Samoa Coastal Management Program Federal Consistency Certification

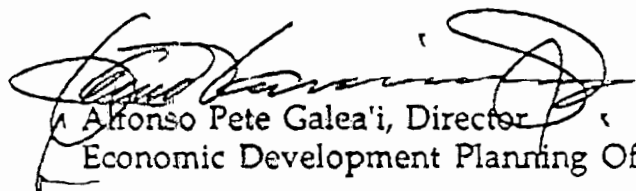
VanCamp Seafood Company, Inc. Ocean Disposal Permit

Under the federal consistency provisions of the Coastal Zone Management Act of 1972, as amended, all federally licensed or permitted activities affecting the coastal zone must be conducted in a manner consistent with the states' (territories') approved management program (subsection 307 (c)(3)(A)). The American Samoa Coastal Management Program was approved in 1980 (EO 3-80, and amended 12-88), and later enacted by law in August of 1991. Consequently, any non-federal applicant applying for a federal permit is required to furnish a certification that the proposed activity will comply with the territory's coastal management program. No USACOE or other federal permits will be issued until ASCMP has issued a Federal Consistency Determination.

This is to certify that the proposed project referenced above does in fact comply with the goals and policies of the ASCMP.

The proposed activity complies with the approved American Samoa Coastal Management Program and will be conducted in a manner consistent with such a program.

This certification should remain in your project documents file.


Alfonso Pete Galea'i, Director
Economic Development Planning Office

cc: ~~Lelei Peau~~ ASCMP Manager
Sheila Weigman, ASEPA Environmental Coordinator
Pat Young, USEPA
Mike Macready, VanCamp Seafood Company, Inc.
PNRS members



A.P. LUTALI
Governor

TAUESE P. SUNIA
Lt. Governor



ALFONSO P. GALEA'I
Director

JOHN P. FAUMUINA JR
Deputy Director

In reply refer to:
ECD:
SERIAL#0625